

EPA-R5-2017-011357-1

**Miguel Deltoral /R5/USEPA/US**

02/13/2012 05:04 AM

To "Andrea Putz"

cc "Alan Stark", Andrea Porter, Mostafa Noureldin, Michael Schock

bcc

Subject LSL Info

Happy Monday!

Below is what Mike Schock had provided previously, with the lengths changed to 5-6 ft. If you folks pack them up, I can swing by, pick them up and then drive them down to Indianapolis, where Mike can meet me to take them back to Cincinnati. If the timing is possible, Wednesdays and Thursdays work best for our Chicago-Indy/Indy-Cincinnati relay.

I did have some Q's for you:

- 1) I assume these are lines that are currently in service so that they reflect the current state of the scales ?
- 2) I'd like to pop out to see a few of these lines being harvested, if possible, and maybe take some pics, if that's ok with your folks. Please advise.

#### **Mike's Original Request**

We would ideally like 4-6 pieces of LSL from various locations in your distribution system, each about 5-6 ft. long. We're also interested in additional sections that might include a curb stop or other connection to brass or copper.

All of the pipe samples don't have to come in at once. If you have more work planned this summer where Pb pipes will be taken out, then send us a couple pipes now, and send others later. The longer the time period between samples, the more we can accommodate for analysis.

As soon as possible after extracting and cutting the pipe segment, seal the ends with rubber or plastic stoppers, corks, duct tape, or something. Please do not crimp the ends, that really messes up the scales. Also, try to make sure that soil from the excavation doesn't get into the segment we need to analyze. You wouldn't believe how many problems the igneous and metamorphic rock minerals common in soils cause with adding extraneous and misleading X-ray diffraction peaks and confounding the interpretations of elemental chemical analysis data... Just keeping the interior of the pipes "humid" helps to limit the amount of sloughing off of the scale during typical parcel shipment. Don't try to fill them with water. It seems logical (and we tried it) but the ends inevitably leak and the air bubbles then slosh back and forth and scour a lot of the scale off of the pipes. Just pack them in shipping tubes or boxes with some padding around them, like bubble pack or anything like that.

If you have the records, we'd appreciate knowing the date (even just year) of LSL installation and the date of removal, and address information. We use the latter for our sample coding system, we don't publish actual addresses or anything like that. But we have a naming/numbering system that works well, using abbreviations for the Province, city, street and sequence of sample. That also helps us organize the data we give back to you since we'll include the lab ID's in a tracking spreadsheet we send back to you for referencing.

We would also like to request that an extra 4-6 inch length be cut off at a couple of locations, and that they be put in large individual plastic bottles filled with your tap water, and sent to us. We have a graduate student researcher here who is investigating microbial growth on various types of pipes, and he's anxious to look at organisms on lead pipes.

Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604  
(312) 886-5253 (P)  
(312) 692-2499 (F)

-----"Putz, Andrea" <Andrea.Putz@cityofchicago.org> wrote: -----

To: Miguel Deltoral/R5/USEPA/US@EPA, "Stark, Alan" <Alan.Stark@cityofchicago.org>  
From: "Putz, Andrea" <Andrea.Putz@cityofchicago.org>  
Date: 02/07/2012 11:12AM  
Cc: Andrea Porter/R5/USEPA/US@EPA  
Subject: RE: Hex Cr & LSLs

We are currently working on a draft protocol. The volunteers will have to be not location based but instead based on a pool of permit applications for those customers replacing or upgrading their water service lines. Please give us details as to how and where you would like the service lines samples shipped? We are envisioning 5 to 6' sections shipped in wooden crates.

Andrea R.H. Putz, Ph.D., E.I.T.

Water Research Specialist

Department of Water Management

City of Chicago

1000 E. Ohio St.

Chicago, IL 60611

(312) 742-1070

FAX (312) 744-7119

EPA-R5-2017-011357-2

**Miguel Deltoral /R5/USEPA/US**

To "Alan Stark", "Andrea Putz", Andrea Porter, Michael Schock,  
Mostafa Nouredin

02/13/2012 05:09 AM

cc

bcc

Subject Re: LSL Info

I forgot one thing...

Not sure if you already told me, but some of the volunteers asked about whether they could pay a private contractor to remove their LSL. They are interested in removing the entire line, and I told them that I didn't think that was possible, since the city owns part of the line, but that I would check with you folks.

Is there any avenue available for LSL replacement for folks that are willing to contract with someone for the removal and pay the cost of the entire replacement, permitting, etc.?

Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604  
(312) 886-5253 (P)  
(312) 692-2499 (F)

-----Miguel Deltoral/R5/USEPA/US wrote: -----

To: "Andrea Putz" <andrea.putz@cityofchicago.org>

From: Miguel Deltoral/R5/USEPA/US

Date: 02/13/2012 05:04AM

Cc: "Alan Stark" <alan.stark@cityofchicago.org>, Andrea Porter/R5/USEPA/US@EPA, Mostafa Nouredin/R5/USEPA/US@EPA, Michael Schock/CI/USEPA/US@EPA

Subject: LSL Info

Happy Monday!

Below is what Mike Schock had provided previously, with the lengths changed to 5-6 ft. If you folks pack them up, I can swing by, pick them up and then drive them down to Indianapolis, where Mike can meet me to take them back to Cincinnati. If the timing is possible, Wednesdays and Thursdays work best for our Chicago-Indy/Indy-Cincinnati relay.

I did have some Q's for you:

- 1) I assume these are lines that are currently in service so that they reflect the current state of the scales ?
- 2) I'd like to pop out to see a few of these lines being harvested, if possible, and maybe take some pics, if that's ok with your folks. Please advise.

#### **Mike's Original Request**

We would ideally like 4-6 pieces of LSL from various locations in your distribution system, each about 5-6 ft. long. We're also interested in additional sections that might include a curb stop or other connection to brass or copper.

All of the pipe samples don't have to come in at once. If you have more work planned this summer where Pb pipes will be taken out, then send us a couple pipes now, and send others later. The longer the time period between samples, the more we can accommodate for analysis.

As soon as possible after extracting and cutting the pipe segment, seal the ends with rubber or plastic stoppers, corks, duct tape, or something. Please do not crimp the ends, that really messes up the scales. Also, try to make sure that soil from the excavation doesn't get into the segment we need to analyze. You wouldn't believe how many problems the igneous and metamorphic rock minerals common in soils cause with adding extraneous and misleading X-ray diffraction peaks and confounding the interpretations of elemental chemical analysis data... Just keeping the interior of the pipes "humid" helps to limit the amount of sloughing off of the scale during typical parcel shipment. Don't try to fill them with water. It seems logical (and we tried it) but the ends inevitably leak and the air bubbles then slosh back and forth and scour a lot of the scale off of the pipes. Just pack them in shipping tubes or boxes with some padding around them, like bubble pack or anything like that.

If you have the records, we'd appreciate knowing the date (even just year) of LSL installation and the date of removal, and address information. We use the latter for our sample coding system, we don't publish actual addresses or anything like that. But we have a naming/numbering system that works well, using abbreviations for the Province, city, street and sequence of sample. That also helps us organize the data we give back to you since we'll include the lab ID's in a tracking spreadsheet we send back to you for referencing.

We would also like to request that an extra 4-6 inch length be cut off at a couple of locations, and that they be put in large individual plastic bottles filled with your tap water, and sent to us. We have a graduate student researcher here who is investigating microbial growth on various types of pipes, and he's anxious to look at organisms on lead pipes.

Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604  
(312) 886-5253 (P)  
(312) 692-2499 (F)

-----"Putz, Andrea" <Andrea.Putz@cityofchicago.org> wrote: -----

To: Miguel Deltoral/R5/USEPA/US@EPA, "Stark, Alan" <Alan.Stark@cityofchicago.org>  
From: "Putz, Andrea" <Andrea.Putz@cityofchicago.org>  
Date: 02/07/2012 11:12AM  
Cc: Andrea Porter/R5/USEPA/US@EPA  
Subject: RE: Hex Cr & LSLs

We are currently working on a draft protocol. The volunteers will have to be not location based but instead based on a pool of permit applications for those customers replacing or upgrading their water service lines. Please give us details as to how and where you would like the service lines samples shipped? We are envisioning 5 to 6' sections shipped in wooden crates.

Andrea R.H. Putz, Ph.D., E.I.T.

Water Research Specialist

Department of Water Management

City of Chicago

1000 E. Ohio St.

Chicago, IL 60611

(312) 742-1070

**FAX (312) 744-7119**

EPA-R5-2017-011357-3

"Stark, Alan"  
<Alan.Stark@cityofchicago.org>

02/13/2012 06:24 AM

To Miguel Deltoral, "Putz, Andrea", Andrea Porter, Michael Schock, Mostafa Nouredin

cc

bcc

Subject RE: LSL Info

I will check tomorrow (today is a holiday for most of the City Work forces) and ask our Plumbing Inspection Section, but I believe a homeowner can change their own service from house to the main (entire) if they hire a licenced plumbing contractor and acquire the proper permits and etc.

Alan Stark  
Department of Water Management  
Jardine Water Purification Plant  
Chicago, Illinois 60611  
312-744-7733 office  
312-742-2364 fax

---

**From:** Miguel Deltoral [Deltoral.Miguel@epamail.epa.gov]  
**Sent:** Monday, February 13, 2012 5:09 AM  
**To:** Stark, Alan; Putz, Andrea; Andrea Porter; Michael Schock; Mostafa Nouredin  
**Subject:** Re: LSL Info

I forgot one thing...

Not sure if you already told me, but some of the volunteers asked about whether they could pay a private contractor to remove their LSL. They are interested in removing the entire line, and I told them that I didn't think that was possible, since the city owns part of the line, but that I would check with you folks.

Is there any avenue available for LSL replacement for folks that are willing to contract with someone for the removal and pay the cost of the entire replacement, permitting, etc.?

Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604  
(312) 886-5253 (P)  
(312) 692-2499 (F)

-----Miguel Deltoral/R5/USEPA/US wrote: -----

To: "Andrea Putz" <andrea.putz@cityofchicago.org>  
From: Miguel Deltoral/R5/USEPA/US  
Date: 02/13/2012 05:04AM  
Cc: "Alan Stark" <alan.stark@cityofchicago.org>, Andrea Porter/R5/USEPA/US@EPA, Mostafa Nouredin/R5/USEPA/US@EPA, Michael Schock/CI/USEPA/US@EPA  
Subject: LSL Info

Happy Monday!

Below is what Mike Schock had provided previously, with the lengths changed to 5-6 ft. If you folks pack

them up, I can swing by, pick them up and then drive them down to Indianapolis, where Mike can meet me to take them back to Cincinnati. If the timing is possible, Wednesdays and Thursdays work best for our Chicago-Indy/Indy-Cincinnati relay.

I did have some Q's for you:

- 1) I assume these are lines that are currently in service so that they reflect the current state of the scales ?
- 2) I'd like to pop out to see a few of these lines being harvested, if possible, and maybe take some pics, if that's ok with your folks. Please advise.

### **Mike's Original Request**

We would ideally like 4-6 pieces of LSL from various locations in your distribution system, each about 5-6 ft. long. We're also interested in additional sections that might include a curb stop or other connection to brass or copper.

All of the pipe samples don't have to come in at once. If you have more work planned this summer where Pb pipes will be taken out, then send us a couple pipes now, and send others later. The longer the time period between samples, the more we can accommodate for analysis.

As soon as possible after extracting and cutting the pipe segment, seal the ends with rubber or plastic stoppers, corks, duct tape, or something. Please do not crimp the ends, that really messes up the scales. Also, try to make sure that soil from the excavation doesn't get into the segment we need to analyze. You wouldn't believe how many problems the igneous and metamorphic rock minerals common in soils cause with adding extraneous and misleading X-ray diffraction peaks and confounding the interpretations of elemental chemical analysis data... Just keeping the interior of the pipes "humid" helps to limit the amount of sloughing off of the scale during typical parcel shipment. Don't try to fill them with water. It seems logical (and we tried it) but the ends inevitably leak and the air bubbles then slosh back and forth and scour a lot of the scale off of the pipes. Just pack them in shipping tubes or boxes with some padding around them, like bubble pack or anything like that.

If you have the records, we'd appreciate knowing the date (even just year) of LSL installation and the date of removal, and address information. We use the latter for our sample coding system, we don't publish actual addresses or anything like that. But we have a naming/numbering system that works well, using abbreviations for the Province, city, street and sequence of sample. That also helps us organize the data we give back to you since we'll include the lab ID's in a tracking spreadsheet we send back to you for referencing.

We would also like to request that an extra 4-6 inch length be cut off at a couple of locations, and that they be put in large individual plastic bottles filled with your tap water, and sent to us. We have a graduate student researcher here who is investigating microbial growth on various types of pipes, and he's anxious to look at organisms on lead pipes.

Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604  
(312) 886-5253 (P)  
(312) 692-2499 (F)

-----"Putz, Andrea" <Andrea.Putz@cityofchicago.org> wrote: -----

To: Miguel DelTorale/R5/USEPA/US@EPA, "Stark, Alan" <Alan.Stark@cityofchicago.org>

From: "Putz, Andrea" <Andrea.Putz@cityofchicago.org>  
Date: 02/07/2012 11:12AM  
Cc: Andrea Porter/R5/USEPA/US@EPA  
Subject: RE: Hex Cr & LSLs

We are currently working on a draft protocol. The volunteers will have to be not location based but instead based on a pool of permit applications for those customers replacing or upgrading their water service lines. Please give us details as to how and where you would like the service lines samples shipped? We are envisioning 5 to 6' sections shipped in wooden crates.

Andrea R.H. Putz, Ph.D., E.I.T.  
Water Research Specialist  
Department of Water Management  
City of Chicago  
1000 E. Ohio St.  
Chicago, IL 60611  
(312) 742-1070  
FAX (312) 744-7119

EPA-R5-2017-011357-4

"Stark, Alan"  
<Alan.Stark@cityofchicago.org>

02/15/2012 04:48 PM

To "Stark, Alan", Miguel Deltoral, "Putz, Andrea", Andrea Porter,  
Michael Schock, Mostafa Noureldin

cc

bcc

Subject RE: LSL Info

Hi Miguel,

We spoke with Plumbing Inspection and they said as long as the customer gets the correct permits by a licensed plumbing contractor they can replace the line up to the water main.

Andrea and I were wondering if you like to have DWM inspect these problematic sites beforehand and try to determine if there are any dielectric issues?

As for dropping by during LSL extraction, we see no issue.

Alan Stark  
Department of Water Management  
Jardine Water Purification Plant  
Chicago, Illinois 60611  
312-744-7733 office  
312-742-2364 fax

---

**From:** Stark, Alan  
**Sent:** Monday, February 13, 2012 6:24 AM  
**To:** Miguel Deltoral; Putz, Andrea; Andrea Porter; Michael Schock; Mostafa Noureldin  
**Subject:** RE: LSL Info

I will check tomorrow (today is a holiday for most of the City Work forces) and ask our Plumbing Inspection Section, but I believe a homeowner can change their own service from house to the main (entire) if they hire a licensed plumbing contractor and acquire the proper permits and etc.

Alan Stark  
Department of Water Management  
Jardine Water Purification Plant  
Chicago, Illinois 60611  
312-744-7733 office  
312-742-2364 fax

---

**From:** Miguel Deltoral [Deltoral.Miguel@epamail.epa.gov]  
**Sent:** Monday, February 13, 2012 5:09 AM  
**To:** Stark, Alan; Putz, Andrea; Andrea Porter; Michael Schock; Mostafa Noureldin  
**Subject:** Re: LSL Info

I forgot one thing...

Not sure if you already told me, but some of the volunteers asked about whether they could pay a private contractor to remove their LSL. They are interested in removing the entire line, and I told them that I didn't think that was possible, since the city owns part of the line, but that I would check with you folks.

Is there any avenue available for LSL replacement for folks that are willing to contract with someone for the removal and pay the cost of the entire replacement, permitting, etc.?

Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604  
(312) 886-5253 (P)  
(312) 692-2499 (F)

-----Miguel Deltoral/R5/USEPA/US wrote: -----

To: "Andrea Putz" <andrea.putz@cityofchicago.org>  
From: Miguel Deltoral/R5/USEPA/US  
Date: 02/13/2012 05:04AM  
Cc: "Alan Stark" <alan.stark@cityofchicago.org>, Andrea Porter/R5/USEPA/US@EPA, Mostafa Nouredin/R5/USEPA/US@EPA, Michael Schock/CI/USEPA/US@EPA  
Subject: LSL Info

Happy Monday!

Below is what Mike Schock had provided previously, with the lengths changed to 5-6 ft. If you folks pack them up, I can swing by, pick them up and then drive them down to Indianapolis, where Mike can meet me to take them back to Cincinnati. If the timing is possible, Wednesdays and Thursdays work best for our Chicago-Indy/Indy-Cincinnati relay.

I did have some Q's for you:

- 1) I assume these are lines that are currently in service so that they reflect the current state of the scales?
- 2) I'd like to pop out to see a few of these lines being harvested, if possible, and maybe take some pics, if that's ok with your folks. Please advise.

#### **Mike's Original Request**

We would ideally like 4-6 pieces of LSL from various locations in your distribution system, each about 5-6 ft. long. We're also interested in additional sections that might include a curb stop or other connection to brass or copper.

All of the pipe samples don't have to come in at once. If you have more work planned this summer where Pb pipes will be taken out, then send us a couple pipes now, and send others later. The longer the time period between samples, the more we can accommodate for analysis.

As soon as possible after extracting and cutting the pipe segment, seal the ends with rubber or plastic stoppers, corks, duct tape, or something. Please do not crimp the ends, that really messes up the scales. Also, try to make sure that soil from the excavation doesn't get into the segment we need to analyze. You wouldn't believe how many problems the igneous and metamorphic rock minerals common in soils cause with adding extraneous and misleading X-ray diffraction peaks and confounding the interpretations of elemental chemical analysis data... Just keeping the interior of the pipes "humid" helps to limit the amount of sloughing off of the scale during typical parcel shipment. Don't try to fill them with water. It seems logical (and we tried it) but the ends inevitably leak and the air bubbles then slosh back and forth and scour a lot of the scale off of the pipes. Just pack them in shipping tubes or boxes with some padding around them, like bubble pack or anything like that.

If you have the records, we'd appreciate knowing the date (even just year) of LSL installation and the date of removal, and address information. We use the latter for our sample coding system, we don't publish actual addresses or anything like that. But we have a naming/numbering system that works well, using abbreviations for the Province, city, street and sequence of sample. That also helps us organize the data we give back to you since we'll include the lab ID's in a tracking spreadsheet we send back to you for referencing.

We would also like to request that an extra 4-6 inch length be cut off at a couple of locations, and that they be put in large individual plastic bottles filled with your tap water, and sent to us. We have a graduate student researcher here who is investigating microbial growth on various types of pipes, and he's anxious to look at organisms on lead pipes.

Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604  
(312) 886-5253 (P)  
(312) 692-2499 (F)

-----"Putz, Andrea" <Andrea.Putz@cityofchicago.org> wrote: -----

To: Miguel Deltoral/R5/USEPA/US@EPA, "Stark, Alan" <Alan.Stark@cityofchicago.org>  
From: "Putz, Andrea" <Andrea.Putz@cityofchicago.org>  
Date: 02/07/2012 11:12AM  
Cc: Andrea Porter/R5/USEPA/US@EPA  
Subject: RE: Hex Cr & LSLs

We are currently working on a draft protocol. The volunteers will have to be not location based but instead based on a pool of permit applications for those customers replacing or upgrading their water service lines. Please give us details as to how and where you would like the service lines samples shipped? We are envisioning 5 to 6' sections shipped in wooden crates.

Andrea R.H. Putz, Ph.D., E.I.T.  
Water Research Specialist  
Department of Water Management  
City of Chicago  
1000 E. Ohio St.  
Chicago, IL 60611  
(312) 742-1070  
**FAX (312) 744-7119**

This e-mail, and any attachments thereto, is intended only for use by the addressee(s) named herein and may contain legally privileged and/or confidential information. If you are not the intended recipient of this e-mail (or the person responsible for delivering this document to the intended recipient), you are hereby notified that any dissemination, distribution, printing or copying of this e-mail, and any attachment thereto, is strictly prohibited. If you have received this e-mail in error, please respond to the individual sending the message, and permanently delete the original and any copy of any e-mail and printout thereof.

EPA-R5-2017-011357-5

"Stark, Alan"  
<Alan.Stark@cityofchicago.org>

02/21/2012 12:00 PM

To Miguel Deltoral

cc

bcc

Subject FW: Impersonating Water Department Employees

Hi Miguel

Thanks!!

Alan

---

**From:** Chiczewski, Ralph  
**Sent:** Tuesday, February 21, 2012 11:58 AM  
**To:** Stark, Alan  
**Cc:** Bresnahan, William  
**Subject:** Impersonating Water Department Employees

Alan,

The information you received from the USEPA regarding five (5) guys impersonating water department employees, while trying to gain entry into homes or apartments, in the area of 3000 W. 26th has been referred to the 10th district station supervisor, Lt Francis Camacho. Lt Camacho related she would put the information out over the PCAD and radio. If she gleans any additional information she will recontact me.

fyi

Ralph Chiczewski  
Assistant Commissioner  
Safety and Security  
Department of Water  
1000 E. Ohio St., +38  
Chicago, Illinois 60611  
Office; 312-744-7007  
Fax; 312-742-1071  
email address; [ralph.chiczewski@ex.cityofchicago.org](mailto:ralph.chiczewski@ex.cityofchicago.org)

This e-mail, and any attachments thereto, is intended only for use by the addressee(s) named herein and may contain legally privileged and/or confidential information. If you are not the intended recipient of this e-mail (or the person responsible for delivering this document to the intended recipient), you are hereby notified that any dissemination, distribution, printing or copying of this e-mail, and any attachment thereto, is strictly prohibited. If you have received this e-mail in error, please respond to the individual sending the message, and permanently delete the original and any copy of any e-mail and printout thereof.

EPA-R5-2017-011357-6

**"Putz, Andrea"**  
<Andrea.Putz@cityofchicago.org>

02/24/2012 10:03 AM

To Miguel Deltoral

cc

bcc

Subject RE: Good Housekeeping : Is your tap water safe?

Yes, nothing says respectable research institution like Good Housekeeping...I wonder who sponsored this article! Thanks for sending.

**From:** Miguel Deltoral [mailto:Deltoral.Miguel@epamail.epa.gov]

**Sent:** Friday, February 24, 2012 9:38 AM

**To:** Stark, Alan; Putz, Andrea

**Subject:** Good Housekeeping : Is your tap water safe?

Just fyi, since they mention everything under the sun...

<http://www.goodhousekeeping.com/health/womens-health/water-safety>

Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604  
(312) 886-5253 (P)  
(312) 692-2499 (F)

This e-mail, and any attachments thereto, is intended only for use by the addressee(s) named herein and may contain legally privileged and/or confidential information. If you are not the intended recipient of this e-mail (or the person responsible for delivering this document to the intended recipient), you are hereby notified that any dissemination, distribution, printing or copying of this e-mail, and any attachment thereto, is strictly prohibited. If you have received this e-mail in error, please respond to the individual sending the message, and permanently delete the original and any copy of any e-mail and printout thereof.

EPA-R5-2017-011357-7

**"Putz, Andrea"**  
<Andrea.Putz@cityofchicago.org>

03/06/2012 04:59 PM

To Miguel Deltoral

cc "Stark, Alan"

bcc

Subject Specifications for Water Service 2-inch and Smaller

Miguel,

A few weeks ago, you had asked about our procedures for water main installations for residential areas. Please find the attached specifications for the City of Chicago. Sorry for the delay!

Thanks,

Andrea & Alan

ANDREA R.H. PUTZ, PH.D., E.I.T.  
WATER RESEARCH SPECIALIST  
DEPARTMENT OF WATER MANAGEMENT  
CITY OF CHICAGO  
1000 E. OHIO ST.  
CHICAGO, IL 60611  
(312) 742-1070  
FAX (312) 744-7119

This e-mail, and any attachments thereto, is intended only for use by the addressee(s) named herein and may contain legally privileged and/or confidential information. If you are not the intended recipient of this e-mail (or the person responsible for delivering this document to the intended recipient), you are hereby notified that any dissemination, distribution, printing or copying of this e-mail, and any attachment thereto, is strictly prohibited. If you have received this e-mail in error, please respond to the individual sending the message, and permanently delete the



original and any copy of any e-mail and printout thereof. Water Main Specs service 2 inch and smaller.pdf



Water Main Specs service 2 inch and smaller detail.pdf

EPA-R5-2017-011357-8

**"Putz, Andrea"**  
<Andrea.Putz@cityofchicago.org>

03/06/2012 05:00 PM

To Miguel Deltoral  
cc "Stark, Alan"  
bcc  
Subject RE: LSL Info

Miguel,  
Any interest in having DWM inspect these problematic sites beforehand to try to determine if there are any dielectric issues?  
Thanks,  
Andrea

**From:** Stark, Alan  
**Sent:** Wednesday, February 15, 2012 4:49 PM  
**To:** Stark, Alan; Miguel Deltoral; Putz, Andrea; Andrea Porter; Michael Schock; Mostafa Nouredin  
**Subject:** RE: LSL Info

Hi Miguel,

We spoke with Plumbing Inspection and they said as long as the customer gets the correct permits by a licensed plumbing contractor they can replace the line up to the water main.

Andrea and I were wondering if you like to have DWM inspect these problematic sites beforehand and try to determine if there are any dielectric issues?

As for dropping by during LSL extraction, we see no issue.

Alan Stark  
Department of Water Management  
Jardine Water Purification Plant  
Chicago, Illinois 60611  
312-744-7733 office  
312-742-2364 fax

---

**From:** Stark, Alan  
**Sent:** Monday, February 13, 2012 6:24 AM  
**To:** Miguel Deltoral; Putz, Andrea; Andrea Porter; Michael Schock; Mostafa Nouredin  
**Subject:** RE: LSL Info

I will check tomorrow (today is a holiday for most of the City Work forces) and ask our Plumbing Inspection Section, but I believe a homeowner can change their own service from house to the main (entire) if they hire a licensed plumbing contractor and acquire the proper permits and etc.

Alan Stark  
Department of Water Management  
Jardine Water Purification Plant  
Chicago, Illinois 60611  
312-744-7733 office  
312-742-2364 fax

---

**From:** Miguel Deltoral [Deltoral.Miguel@epamail.epa.gov]  
**Sent:** Monday, February 13, 2012 5:09 AM  
**To:** Stark, Alan; Putz, Andrea; Andrea Porter; Michael Schock; Mostafa Nouredin  
**Subject:** Re: LSL Info  
I forgot one thing...

Not sure if you already told me, but some of the volunteers asked about whether they could pay a private contractor to remove their LSL. They are interested in removing the entire line, and I told them that I didn't think that was possible, since the city owns part of the line, but that I would check with you folks.

Is there any avenue available for LSL replacement for folks that are willing to contract with someone for the removal and pay the cost of the entire replacement, permitting, etc.?

Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604  
(312) 886-5253 (P)  
(312) 692-2499 (F)

-----Miguel Deltoral/R5/USEPA/US wrote: -----

To: "Andrea Putz" <[andrea.putz@cityofchicago.org](mailto:andrea.putz@cityofchicago.org)>  
From: Miguel Deltoral/R5/USEPA/US  
Date: 02/13/2012 05:04AM  
Cc: "Alan Stark" <[alan.stark@cityofchicago.org](mailto:alan.stark@cityofchicago.org)>, Andrea Porter/R5/USEPA/US@EPA, Mostafa Nouredin/R5/USEPA/US@EPA, Michael Schock/CI/USEPA/US@EPA  
Subject: LSL Info  
Happy Monday!

Below is what Mike Schock had provided previously, with the lengths changed to 5-6 ft. If you folks pack them up, I can swing by, pick them up and then drive them down to Indianapolis, where Mike can meet me to take them back to Cincinnati. If the timing is possible, Wednesdays and Thursdays work best for our Chicago-Indy/Indy-Cincinnati relay.

I did have some Q's for you:

- 1) I assume these are lines that are currently in service so that they reflect the current state of the scales?
- 2) I'd like to pop out to see a few of these lines being harvested, if possible, and maybe take some pics, if that's ok with your folks. Please advise.

#### **Mike's Original Request**

We would ideally like 4-6 pieces of LSL from various locations in your distribution system, each about 5-6 ft. long. We're also interested in additional sections that might include a curb stop or other connection to brass or copper.

All of the pipe samples don't have to come in at once. If you have more work planned this summer where Pb pipes will be taken out, then send us a couple pipes now, and send others later. The longer the time period between samples, the more we can accommodate for analysis.

As soon as possible after extracting and cutting the pipe segment, seal the ends with rubber or plastic stoppers, corks, duct tape, or something. Please do not crimp the ends, that really messes up the scales. Also, try to make sure that soil from the excavation doesn't get into the segment we need to analyze. You wouldn't believe how many problems the igneous and metamorphic rock minerals common in soils cause with adding extraneous and misleading X-ray diffraction peaks and confounding the interpretations of elemental chemical analysis data... Just keeping the interior of the pipes "humid" helps to limit the amount of sloughing off of the scale during typical parcel shipment. Don't try to fill them with water. It seems logical (and we tried it) but the ends inevitably leak and the air bubbles then slosh back and forth and scour a lot of the scale off of the pipes. Just pack them in shipping tubes or boxes with some padding around them, like bubble pack or anything like that.

If you have the records, we'd appreciate knowing the date (even just year) of LSL installation and the date of removal, and address information. We use the latter for our sample coding system, we don't publish actual addresses or anything like that. But we have a naming/numbering system that works well, using abbreviations for the Province, city, street and sequence of sample. That also helps us organize the data we give back to you since we'll include the lab ID's in a tracking spreadsheet we send back to you for referencing.

We would also like to request that an extra 4-6 inch length be cut off at a couple of locations, and that they be put in large individual plastic bottles filled with your tap water, and sent to us. We have a graduate student researcher here who is investigating microbial growth on various types of pipes, and he's anxious to look at organisms on lead pipes.

Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604  
(312) 886-5253 (P)  
(312) 692-2499 (F)

-----"Putz, Andrea" <[Andrea.Putz@cityofchicago.org](mailto:Andrea.Putz@cityofchicago.org)> wrote: -----

To: Miguel Deltoral/R5/USEPA/US@EPA, "Stark, Alan" <[Alan.Stark@cityofchicago.org](mailto:Alan.Stark@cityofchicago.org)>

From: "Putz, Andrea" <[Andrea.Putz@cityofchicago.org](mailto:Andrea.Putz@cityofchicago.org)>

Date: 02/07/2012 11:12AM

Cc: Andrea Porter/R5/USEPA/US@EPA

Subject: RE: Hex Cr & LSLs

We are currently working on a draft protocol. The volunteers will have to be not location based but instead based on a pool of permit applications for those customers replacing or upgrading their water service lines. Please give us details as to how and where you would like the service lines samples shipped? We are envisioning 5 to 6' sections shipped in wooden crates.

Andrea R.H. Putz, Ph.D., E.I.T.  
Water Research Specialist  
Department of Water Management  
City of Chicago  
1000 E. Ohio St.  
Chicago, IL 60611  
(312) 742-1070  
FAX (312) 744-7119

EPA-R5-2017-011357-9

**Miguel Deltoral /R5/USEPA/US**

03/07/2012 12:38 PM

To "Putz, Andrea"

cc "Stark, Alan"

bcc

Subject Re: Specifications for Water Service 2-inch and Smaller

Thanks!

Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604  
(312) 886-5253 (P)  
(312) 692-2499 (F)

"Putz, Andrea"

Miguel, A few weeks ago, you had aske...

03/06/2012 04:59:51 PM

From: "Putz, Andrea" <Andrea.Putz@cityofchicago.org>  
To: Miguel Deltoral/R5/USEPA/US@EPA  
Cc: "Stark, Alan" <Alan.Stark@cityofchicago.org>  
Date: 03/06/2012 04:59 PM  
Subject: Specifications for Water Service 2-inch and Smaller

---

Miguel,

A few weeks ago, you had asked about our procedures for water main installations for residential areas. Please find the attached specifications for the City of Chicago. Sorry for the delay!

Thanks,

Andrea & Alan

ANDREA R.H. PUTZ, PH.D., E.I.T.  
WATER RESEARCH SPECIALIST  
DEPARTMENT OF WATER MANAGEMENT  
CITY OF CHICAGO  
1000 E. OHIO ST.  
CHICAGO, IL 60611  
(312) 742-1070  
FAX (312) 744-7119

This e-mail, and any attachments thereto, is intended only for use by the addressee(s) named herein and may contain legally privileged and/or confidential information. If you are not the intended recipient of this e-mail (or the person responsible for delivering this document to the intended recipient), you are hereby notified that any dissemination, distribution, printing or copying of this e-mail, and any attachment thereto, is strictly prohibited. If you have received this e-mail in error, please respond to the individual sending the message, and permanently delete the original and any copy of any e-mail and printout thereof.[attachment "Water Main Specs service 2 inch and smaller.pdf" deleted by Miguel Deltoral/R5/USEPA/US] [attachment "Water Main Specs service 2 inch and smaller detail.pdf" deleted by Miguel Deltoral/R5/USEPA/US]



EPA-R5-2017-011357-10

**Miguel Deltoral /R5/USEPA/US**

To "Putz, Andrea"

03/07/2012 12:45 PM

cc "Stark, Alan", Andrea Porter, Mostafa Nouredin

bcc

Subject RE: LSL Info

I think I've over-extended my welcome in bugging the volunteers, and there are certainly some internal plumbing issues, but looking at the sequential sampling data (4 metals) and other info, there is not an internal plumbing issue with respect to very high lead (except where the meter/LSL are very close to the sample tap), and it's my understanding that there are no partial LSLs (correct?)

Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604  
(312) 886-5253 (P)  
(312) 692-2499 (F)

"Putz, Andrea"

Miguel, Any interest in having DWM ins...

03/06/2012 05:00:42 PM

From: "Putz, Andrea" <Andrea.Putz@cityofchicago.org>  
To: Miguel Deltoral/R5/USEPA/US@EPA  
Cc: "Stark, Alan" <Alan.Stark@cityofchicago.org>  
Date: 03/06/2012 05:00 PM  
Subject: RE: LSL Info

---

Miguel,  
Any interest in having DWM inspect these problematic sites beforehand to try to determine if there are any dielectric issues?  
Thanks,  
Andrea

**From:** Stark, Alan  
**Sent:** Wednesday, February 15, 2012 4:49 PM  
**To:** Stark, Alan; Miguel Deltoral; Putz, Andrea; Andrea Porter; Michael Schock; Mostafa Nouredin  
**Subject:** RE: LSL Info

Hi Miguel,

We spoke with Plumbing Inspection and they said as long as the customer gets the correct permits by a licensed plumbing contractor the can replace the line up to the water main.

Andrea and I were wondering if you like to have DWM inspect these problematic sites beforehand and try to determine if there are any dielectric issues?

As for dropping by during LSL extraction, we see no issue.

Alan Stark  
Department of Water Management

Jardine Water Purification Plant  
Chicago, Illinois 60611  
312-744-7733 office  
312-742-2364 fax

---

**From:** Stark, Alan  
**Sent:** Monday, February 13, 2012 6:24 AM  
**To:** Miguel Deltoral; Putz, Andrea; Andrea Porter; Michael Schock; Mostafa Noureldin  
**Subject:** RE: LSL Info

I will check tomorrow (today is a holiday for most of the City Work forces) and ask our Plumbing Inspection Section, but I believe a homeowner can change their own service from house to the main (entire) if they hire a licenced plumbing contractor and acquire the proper permits and etc.

Alan Stark  
Department of Water Management  
Jardine Water Purification Plant  
Chicago, Illinois 60611  
312-744-7733 office  
312-742-2364 fax

---

**From:** Miguel Deltoral [Deltoral.Miguel@epamail.epa.gov]  
**Sent:** Monday, February 13, 2012 5:09 AM  
**To:** Stark, Alan; Putz, Andrea; Andrea Porter; Michael Schock; Mostafa Noureldin  
**Subject:** Re: LSL Info  
I forgot one thing...

Not sure if you already told me, but some of the volunteers asked about whether they could pay a private contractor to remove their LSL. They are interested in removing the entire line, and I told them that I didn't think that was possible, since the city owns part of the line, but that I would check with you folks.

Is there any avenue available for LSL replacement for folks that are willing to contract with someone for the removal and pay the cost of the entire replacement, permitting, etc.?

Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604  
(312) 886-5253 (P)  
(312) 692-2499 (F)

-----Miguel Deltoral/R5/USEPA/US wrote: -----

To: "Andrea Putz" <[andrea.putz@cityofchicago.org](mailto:andrea.putz@cityofchicago.org)>  
From: Miguel Deltoral/R5/USEPA/US  
Date: 02/13/2012 05:04AM  
Cc: "Alan Stark" <[alan.stark@cityofchicago.org](mailto:alan.stark@cityofchicago.org)>, Andrea Porter/R5/USEPA/US@EPA, Mostafa Noureldin/R5/USEPA/US@EPA, Michael Schock/CI/USEPA/US@EPA  
Subject: LSL Info

Happy Monday!

Below is what Mike Schock had provided previously, with the lengths changed to 5-6 ft. If you folks pack them up, I can swing by, pick them up and then drive them down to Indianapolis, where Mike can meet me to take them back to Cincinnati. If the timing is possible, Wednesdays and Thursdays work best for our Chicago-Indy/Indy-Cincinnati relay.

I did have some Q's for you:

- 1) I assume these are lines that are currently in service so that they reflect the current state of the scales?
- 2) I'd like to pop out to see a few of these lines being harvested, if possible, and maybe take some pics, if that's ok with your folks. Please advise.

#### **Mike's Original Request**

We would ideally like 4-6 pieces of LSL from various locations in your distribution system, each about 5-6 ft. long. We're also interested in additional sections that might include a curb stop or other connection to brass or copper.

All of the pipe samples don't have to come in at once. If you have more work planned this summer where Pb pipes will be taken out, then send us a couple pipes now, and send others later. The longer the time period between samples, the more we can accommodate for analysis.

As soon as possible after extracting and cutting the pipe segment, seal the ends with rubber or plastic stoppers, corks, duct tape, or something. Please do not crimp the ends, that really messes up the scales. Also, try to make sure that soil from the excavation doesn't get into the segment we need to analyze. You wouldn't believe how many problems the igneous and metamorphic rock minerals common in soils cause with adding extraneous and misleading X-ray diffraction peaks and confounding the interpretations of elemental chemical analysis data... Just keeping the interior of the pipes "humid" helps to limit the amount of sloughing off of the scale during typical parcel shipment. Don't try to fill them with water. It seems logical (and we tried it) but the ends inevitably leak and the air bubbles then slosh back and forth and scour a lot of the scale off of the pipes. Just pack them in shipping tubes or boxes with some padding around them, like bubble pack or anything like that.

If you have the records, we'd appreciate knowing the date (even just year) of LSL installation and the date of removal, and address information. We use the latter for our sample coding system, we don't publish actual addresses or anything like that. But we have a naming/numbering system that works well, using abbreviations for the Province, city, street and sequence of sample. That also helps us organize the data we give back to you since we'll include the lab ID's in a tracking spreadsheet we send back to you for referencing.

We would also like to request that an extra 4-6 inch length be cut off at a couple of locations, and that they be put in large individual plastic bottles filled with your tap water, and sent to us. We have a graduate student researcher here who is investigating microbial growth on various types of pipes, and he's anxious to look at organisms on lead pipes.

Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604  
(312) 886-5253 (P)  
(312) 692-2499 (F)

-----"Putz, Andrea" <[Andrea.Putz@cityofchicago.org](mailto:Andrea.Putz@cityofchicago.org)> wrote: -----

To: Miguel Deltoral/R5/USEPA/US@EPA, "Stark, Alan" <[Alan.Stark@cityofchicago.org](mailto:Alan.Stark@cityofchicago.org)>

From: "Putz, Andrea" <[Andrea.Putz@cityofchicago.org](mailto:Andrea.Putz@cityofchicago.org)>

Date: 02/07/2012 11:12AM

Cc: Andrea Porter/R5/USEPA/US@EPA

Subject: RE: Hex Cr & LSLs

We are currently working on a draft protocol. The volunteers will have to be not location based but instead based on a pool of permit applications for those customers replacing or upgrading their water service lines. Please give us details as to how and where you would like the service lines samples shipped? We are envisioning 5 to 6' sections shipped in wooden crates.

Andrea R.H. Putz, Ph.D., E.I.T.  
Water Research Specialist  
Department of Water Management  
City of Chicago  
1000 E. Ohio St.  
Chicago, IL 60611  
(312) 742-1070  
FAX (312) 744-7119

EPA-R5-2017-011357-11

**"Putz, Andrea"**  
<[Andrea.Putz@cityofchicago.org](mailto:Andrea.Putz@cityofchicago.org)>

03/07/2012 03:29 PM

To Miguel Deltoral

cc "Stark, Alan", Andrea Porter, Mostafa Noureldin

bcc

Subject RE: LSL Info

Correct, we do not have a partial lead replacement program. All we would do is if there is a new main, we would install up to a few feet of copper as a transition piece off the corp of the new main – per our specs we sent yesterday.

**From:** Miguel Deltoral [<mailto:Deltoral.Miguel@epamail.epa.gov>]

**Sent:** Wednesday, March 07, 2012 12:45 PM

**To:** Putz, Andrea

**Cc:** Stark, Alan; Andrea Porter; Mostafa Noureldin

**Subject:** RE: LSL Info

I think I've over-extended my welcome in bugging the volunteers, and there are certainly some internal plumbing issues, but looking at the sequential sampling data (4 metals) and other info, there is not an internal plumbing issue with respect to very high lead (except where the meter/LSL are very close to the sample tap), and it's my understanding that there are no partial LSLs (correct?)

Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604  
(312) 886-5253 (P)  
(312) 692-2499 (F)

From: "Putz, Andrea" <[Andrea.Putz@cityofchicago.org](mailto:Andrea.Putz@cityofchicago.org)>

To: Miguel Deltoral/R5/USEPA/US@EPA

Cc: "Stark, Alan" <[Alan.Stark@cityofchicago.org](mailto:Alan.Stark@cityofchicago.org)>

Date: 03/06/2012 05:00 PM

Subject: RE: LSL Info

---

Miguel,  
Any interest in having DWM inspect these problematic sites beforehand to try to determine if there are any dielectric issues?

Thanks,  
Andrea

**From:** Stark, Alan

**Sent:** Wednesday, February 15, 2012 4:49 PM

**To:** Stark, Alan; Miguel Deltoral; Putz, Andrea; Andrea Porter; Michael Schock; Mostafa Noureldin

**Subject:** RE: LSL Info

Hi Miguel,

We spoke with Plumbing Inspection and they said as long as the customer gets the correct permits by a licensed plumbing contractor the can replace the line up to the water main.

Andrea and I were wondering if you like to have DWM inspect these problematic sites beforehand and try to determine if there are any dielectric issues?

As for dropping by during LSL extraction, we see no issue.

Alan Stark  
Department of Water Management  
Jardine Water Purification Plant  
Chicago, Illinois 60611  
312-744-7733 office  
312-742-2364 fax

---

**From:** Stark, Alan

**Sent:** Monday, February 13, 2012 6:24 AM

**To:** Miguel Deltoral; Putz, Andrea; Andrea Porter; Michael Schock; Mostafa Noureldin

**Subject:** RE: LSL Info

I will check tomorrow (today is a holiday for most of the City Work forces) and ask our Plumbing Inspection Section, but I believe a homeowner can change their own service from house to the main (entire) if they hire a licensed plumbing contractor and acquire the proper permits and etc.

Alan Stark  
Department of Water Management  
Jardine Water Purification Plant  
Chicago, Illinois 60611  
312-744-7733 office  
312-742-2364 fax

---

**From:** Miguel Deltoral [Deltoral.Miguel@epamail.epa.gov]

**Sent:** Monday, February 13, 2012 5:09 AM

**To:** Stark, Alan; Putz, Andrea; Andrea Porter; Michael Schock; Mostafa Noureldin

**Subject:** Re: LSL Info

I forgot one thing...

Not sure if you already told me, but some of the volunteers asked about whether they could pay a private contractor to remove their LSL. They are interested in removing the entire line, and I told them that I didn't think that was possible, since the city owns part of the line, but that I would check with you folks.

Is there any avenue available for LSL replacement for folks that are willing to contract with someone for the removal and pay the cost of the entire replacement, permitting, etc.?

Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604  
(312) 886-5253 (P)  
(312) 692-2499 (F)

-----Miguel Deltoral/R5/USEPA/US wrote: -----

To: "Andrea Putz" <[andrea.putz@cityofchicago.org](mailto:andrea.putz@cityofchicago.org)>

From: Miguel Deltoral/R5/USEPA/US

Date: 02/13/2012 05:04AM

Cc: "Alan Stark" <[alan.stark@cityofchicago.org](mailto:alan.stark@cityofchicago.org)>, Andrea Porter/R5/USEPA/US@EPA, Mostafa Nouredin/R5/USEPA/US@EPA, Michael Schock/CI/USEPA/US@EPA

Subject: LSL Info

Happy Monday!

Below is what Mike Schock had provided previously, with the lengths changed to 5-6 ft. If you folks pack them up, I can swing by, pick them up and then drive them down to Indianapolis, where Mike can meet me to take them back to Cincinnati. If the timing is possible, Wednesdays and Thursdays work best for our Chicago-Indy/Indy-Cincinnati relay.

I did have some Q's for you:

- 1) I assume these are lines that are currently in service so that they reflect the current state of the scales?
- 2) I'd like to pop out to see a few of these lines being harvested, if possible, and maybe take some pics, if that's ok with your folks. Please advise.

#### **Mike's Original Request**

We would ideally like 4-6 pieces of LSL from various locations in your distribution system, each about 5-6 ft. long. We're also interested in additional sections that might include a curb stop or other connection to brass or copper.

All of the pipe samples don't have to come in at once. If you have more work planned this summer where Pb pipes will be taken out, then send us a couple pipes now, and send others later. The longer the time period between samples, the more we can accommodate for analysis.

As soon as possible after extracting and cutting the pipe segment, seal the ends with rubber or plastic stoppers, corks, duct tape, or something. Please do not crimp the ends, that really messes up the scales. Also, try to make sure that soil from the excavation doesn't get into the segment we need to analyze. You wouldn't believe how many problems

the igneous and metamorphic rock minerals common in soils cause with adding extraneous and misleading X-ray diffraction peaks and confounding the interpretations of elemental chemical analysis data... Just keeping the interior of the pipes "humid" helps to limit the amount of sloughing off of the scale during typical parcel shipment. Don't try to fill them with water. It seems logical (and we tried it) but the ends inevitably leak and the air bubbles then slosh back and forth and scour a lot of the scale off of the pipes. Just pack them in shipping tubes or boxes with some padding around them, like bubble pack or anything like that.

If you have the records, we'd appreciate knowing the date (even just year) of LSL installation and the date of removal, and address information. We use the latter for our sample coding system, we don't publish actual addresses or anything like that. But we have a naming/numbering system that works well, using abbreviations for the Province, city, street and sequence of sample. That also helps us organize the data we give back to you since we'll include the lab ID's in a tracking spreadsheet we send back to you for referencing.

We would also like to request that an extra 4-6 inch length be cut off at a couple of locations, and that they be put in large individual plastic bottles filled with your tap water, and sent to us. We have a graduate student researcher here who is investigating microbial growth on various types of pipes, and he's anxious to look at organisms on lead pipes.

Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604  
(312) 886-5253 (P)  
(312) 692-2499 (F)

-----"Putz, Andrea" <[Andrea.Putz@cityofchicago.org](mailto:Andrea.Putz@cityofchicago.org)> wrote: -----

To: Miguel Deltoral/R5/USEPA/US@EPA, "Stark, Alan" <[Alan.Stark@cityofchicago.org](mailto:Alan.Stark@cityofchicago.org)>

From: "Putz, Andrea" <[Andrea.Putz@cityofchicago.org](mailto:Andrea.Putz@cityofchicago.org)>

Date: 02/07/2012 11:12AM

Cc: Andrea Porter/R5/USEPA/US@EPA

Subject: RE: Hex Cr & LSLs

We are currently working on a draft protocol. The volunteers will have to be not location based but instead based on a pool of permit applications for those customers replacing or upgrading their water service lines. Please give us details as to how and where you would like the service lines samples shipped? We are envisioning 5 to 6' sections shipped in wooden crates.

Andrea R.H. Putz, Ph.D., E.I.T.  
Water Research Specialist  
Department of Water Management  
City of Chicago  
1000 E. Ohio St.  
Chicago, IL 60611  
(312) 742-1070  
[FAX \(312\) 744-7119](tel:(312)744-7119)

This e-mail, and any attachments thereto, is intended only for use by the addressee(s) named herein and may contain legally privileged and/or confidential information. If you are not the

intended recipient of this e-mail (or the person responsible for delivering this document to the intended recipient), you are hereby notified that any dissemination, distribution, printing or copying of this e-mail, and any attachment thereto, is strictly prohibited. If you have received this e-mail in error, please respond to the individual sending the message, and permanently delete the original and any copy of any e-mail and printout thereof.

EPA-R5-2017-011357-13

**Miguel Deltoral /R5/USEPA/US**

To alan.stark, andrea.putz

cc

04/03/2012 09:15 AM

bcc

Subject Chicago Study Status Update

Greetings!

I am in the process of drafting the study report, and would like to include some background information on Chicago's past sampling (historical) as well as a water quality data summary. If it is not too much trouble, can you ship me a spreadsheet with the individual Pb results and water quality parameter measurements (entry points and distribution system) back to the initial monitoring period?

Regarding the timeline...Once I complete the draft (mid-April), I will brief folks here, and then we will share the draft with you ahead of submitting it to EST for consideration/peer review/publication.

Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604  
(312) 886-5253 (P)  
(312) 692-2499 (F)

EPA-R5-2017-011357-14

**"Stark, Alan"**  
**<Alan.Stark@cityofchicago.org>**

04/13/2012 05:54 PM

To Miguel Deltoral

cc

bcc

Subject Data

Hi Miguel

I forgot to send data by the . 15th I will send data on monday

It has been a busy week

Sorry

Al

EPA-R5-2017-011357-15

**Miguel Deltoral /R5/USEPA/US**

To "Alan Stark"

cc

04/16/2012 01:08 PM

bcc

Subject Fw: Water studies

Here's the email I was talking about in my voicemail msg .

Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604  
(312) 886-5253 (P)  
(312) 692-2499 (F)

-----Forwarded by Miguel Deltoral/R5/USEPA/US on 04/16/2012 01:08PM -----

To: Miguel Deltoral/R5/USEPA/US@EPA  
From: "Jorgensen, Emile" <Emile.Jorgensen@cityofchicago.org>  
Date: 04/16/2012 09:04AM  
Subject: Water studies

Hi Miguel,

I am the epidemiologist in Chicago's childhood lead poisoning prevention program . I understand that you are the EPA staff working on lead in water. I would like to touch base with you about what you are finding regarding lead in our water supply so we can adjust accordingly . Specifically, I would like to know what we should recommend to people about the risks from water , the need or lack thereof to test their home water supply, and any recommendation about flushing water.

We have cooperated very closely with the EPA and ATSDR when they have wanted information about children's blood lead levels. Also, our inspectors drew water samples in many homes for a Chicago water bureau testing program. I would appreciate a response. Perhaps we could set up a time to talk by phone or I could come down to your office, too.

Best, Emile

Emile Jorgensen, Epidemiologist II  
Childhood Lead Poisoning Prevention Program  
Chicago Department of Public Health  
2133 W Lexington St, Chicago IL 60612

Ph: 312-746-5007; Fax: 312-746-6526

This e-mail, and any attachments thereto, is intended only for use by the addressee(s) named herein and may contain legally privileged and/or confidential information. If you are not the intended recipient of this e-mail (or the person responsible for delivering this document to the intended recipient), you are hereby notified that any dissemination, distribution, printing or copying of this e-mail, and any attachment thereto, is strictly prohibited. If you have received this e-mail in error, please respond to the individual sending the message, and permanently delete the original and any copy of any e-mail and printout thereof.

EPA-R5-2017-011357-16

**Miguel Deltoral /R5/USEPA/US**

To "Jorgensen, Emile"

cc

04/16/2012 01:42 PM

bcc

Subject Re: Water studies

Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604  
(312) 886-5253 (P)  
(312) 692-2499 (F)

-----"Jorgensen, Emile" <Emile.Jorgensen@cityofchicago.org> wrote: -----

To: Miguel Deltoral/R5/USEPA/US@EPA

From: "Jorgensen, Emile" <Emile.Jorgensen@cityofchicago.org>

Date: 04/16/2012 09:04AM

Subject: Water studies

Hi Miguel,

I am the epidemiologist in Chicago's childhood lead poisoning prevention program. I understand that you are the EPA staff working on lead in water. I would like to touch base with you about what you are finding regarding lead in our water supply so we can adjust accordingly. Specifically, I would like to know what we should recommend to people about the risks from water, the need or lack thereof to test their home water supply, and any recommendation about flushing water.

We have cooperated very closely with the EPA and ATSDR when they have wanted information about children's blood lead levels. Also, our inspectors drew water samples in many homes for a Chicago water bureau testing program. I would appreciate a response. Perhaps we could set up a time to talk by phone or I could come down to your office, too.

Best, Emile

Emile Jorgensen, Epidemiologist II  
Childhood Lead Poisoning Prevention Program  
Chicago Department of Public Health  
2133 W Lexington St, Chicago IL 60612

Ph: 312-746-5007; Fax: 312-746-6526

This e-mail, and any attachments thereto, is intended only for use by the addressee(s) named herein and may contain legally privileged and/or confidential information. If you are not the intended recipient of this e-mail (or the person responsible for delivering this document to the intended recipient), you are hereby notified that any dissemination, distribution, printing or copying of this e-mail, and any attachment thereto, is strictly prohibited. If you have received this e-mail in error, please respond to the individual sending the message, and permanently delete the original and any copy of any e-mail and printout thereof.



Lead Service Line Bulb.jpg Chicago Galv Pipe (2).jpg Chicago LSL (4).jpg

EPA-R5-2017-011357-17

**"Stark, Alan"**  
<Alan.Stark@cityofchicago.org>

04/16/2012 02:26 PM

To Miguel Deltoral

cc "Putz, Andrea"

bcc

Subject WQP 09 11

Hi Miguel,

Sorry for the wait, it has been chaos here in trying to keep up.

Attached is the WQPs for 2009 through 2011.

The issue we have is that we don't have this data on one format, therefore the pdf. Andrea and I were talking and we are going to try to convert the pdf to excel and send it to you.

Thanks  
Alan

Alan Stark  
Department of Water Management  
Jardine Water Purification Plant  
Chicago, Illinois 60611  
312-744-7733 office



312-742-2364 fax WQP 0911.pdf

EPA-R5-2017-011357-18

**Miguel Deltoral /R5/USEPA/US**

To "Alan Stark", "Andrea Putz"

cc

06/04/2012 05:55 AM

bcc

Subject Question on Phosphoric

Greetings!

Hope the NATO stuff didn't put you folks out too much. I figured I'd leave you alone during that headache...

Quick question for you folks - I should be done writing up the draft study this week, but I have a few holes to fill. When did you go on-line with phosphoric at the South and Jardine plants (month/year is fine).

Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604  
(312) 886-5253 (P)  
(312) 692-2499 (F)

EPA-R5-2017-011357-20

**"Putz, Andrea"**  
<Andrea.Putz@cityofchicago.org>

06/04/2012 11:52 AM

To Miguel Deltoral, "Stark, Alan"

cc

bcc

Subject RE: Question on Phosphoric

**1947 SWPP/1964 JWPP – used pH adjustment, lime as corrosion control**

**SWPP – June 1993 stiles kem blended phosphate addition begins; lime still fed**

**JWPP – January 1994 stiles kem blended phosphate addition begins; lime still fed**

**Dec 1995 – stopped feeding lime at both plants – pH was too high with lime for optimum phosphate-based corrosion control**

**Switched to Carus brand blended phosphate for economic reasons in early 1997**

**From:** Miguel Deltoral [mailto:Deltoral.Miguel@epamail.epa.gov]

**Sent:** Monday, June 04, 2012 5:55 AM

**To:** Stark, Alan; Putz, Andrea

**Subject:** Question on Phosphoric

**Importance:** High

Greetings!

Hope the NATO stuff didn't put you folks out too much. I figured I'd leave you alone during that headache...

Quick question for you folks - I should be done writing up the draft study this week, but I have a few holes to fill. When did you go on-line with phosphoric at the South and Jardine plants (month/year is fine).

Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604  
(312) 886-5253 (P)  
(312) 692-2499 (F)

EPA-R5-2017-011357-22

**Miguel Deltoral /R5/USEPA/US**

To "Putz, Andrea"

06/05/2012 05:49 AM

cc "Stark, Alan"

bcc

Subject RE: Question on Phosphoric

Are you still using a blend? I thought I remembered that you folks were moving to straight ortho, or did I get that wrong?

Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604  
(312) 886-5253 (P)  
(312) 692-2499 (F)

"Putz, Andrea"

1947 SWPP/1964 JWPP - used pH adj...

06/04/2012 11:53:11 AM

From: "Putz, Andrea" <Andrea.Putz@cityofchicago.org>  
To: Miguel Deltoral/R5/USEPA/US@EPA, "Stark, Alan" <Alan.Stark@cityofchicago.org>  
Date: 06/04/2012 11:53 AM  
Subject: RE: Question on Phosphoric

---

**1947 SWPP/1964 JWPP – used pH adjustment, lime as corrosion control**  
**SWPP – June 1993 stiles kem blended phosphate addition begins; lime still fed**  
**JWPP – January 1994 stiles kem blended phosphate addition begins; lime still fed**  
**Dec 1995 – stopped feeding lime at both plants – pH was too high with lime for optimum**  
**phosphate-based corrosion control**  
**Switched to Carus brand blended phosphate for economic reasons in early 1997**

**From:** Miguel Deltoral [mailto:Deltoral.Miguel@epamail.epa.gov]  
**Sent:** Monday, June 04, 2012 5:55 AM  
**To:** Stark, Alan; Putz, Andrea  
**Subject:** Question on Phosphoric  
**Importance:** High

Greetings!

Hope the NATO stuff didn't put you folks out too much. I figured I'd leave you alone during that headache...

Quick question for you folks - I should be done writing up the draft study this week, but I have a few holes to fill. When did you go on-line with phosphoric at the South and Jardine plants (month/year is fine).

Miguel A. Del Toral

Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604  
(312) 886-5253 (P)  
(312) 692-2499 (F)

EPA-R5-2017-011357-24

**"Putz, Andrea"**  
<Andrea.Putz@cityofchicago.org>

06/05/2012 06:07 AM

To Miguel Deltoral

cc "Stark, Alan"

bcc

Subject Re: Question on Phosphoric

Yep - still a blend for now. We are doing full scale verification testing for addition of ortho at the rapid mix though.

**From:** Miguel Deltoral [mailto:Deltoral.Miguel@epamail.epa.gov]

**Sent:** Tuesday, June 05, 2012 05:49 AM

**To:** Putz, Andrea

**Cc:** Stark, Alan

**Subject:** RE: Question on Phosphoric

Are you still using a blend? I thought I remembered that you folks were moving to straight ortho, or did I get that wrong?

Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604  
(312) 886-5253 (P)  
(312) 692-2499 (F)

▼ "Putz, Andrea" ---06/04/2012 11:53:11 AM---1947 SWPP/1964 JWPP - used pH adjustment, lime as corrosion control SWPP - June 1993 stiles kem blen

From: "Putz, Andrea" <Andrea.Putz@cityofchicago.org>

To: Miguel Deltoral/R5/USEPA/US@EPA, "Stark, Alan" <Alan.Stark@cityofchicago.org>

Date: 06/04/2012 11:53 AM

Subject: RE: Question on Phosphoric

---

**1947 SWPP/1964 JWPP – used pH adjustment, lime as corrosion control**

**SWPP – June 1993 stiles kem blended phosphate addition begins ; lime still fed**

**JWPP – January 1994 stiles kem blended phosphate addition begins ; lime still fed**

**Dec 1995 – stopped feeding lime at both plants – pH was too high with lime for optimum phosphate-based corrosion control**

**Switched to Carus brand blended phosphate for economic reasons in early 1997**

**From:** Miguel Deltoral [<mailto:Deltoral.Miguel@epamail.epa.gov>]

**Sent:** Monday, June 04, 2012 5:55 AM  
**To:** Stark, Alan; Putz, Andrea  
**Subject:** Question on Phosphoric  
**Importance:** High

Greetings!

Hope the NATO stuff didn't put you folks out too much. I figured I'd leave you alone during that headache...

Quick question for you folks - I should be done writing up the draft study this week, but I have a few holes to fill. When did you go on-line with phosphoric at the South and Jardine plants (month/year is fine).

Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604  
(312) 886-5253 (P)  
(312) 692-2499 (F)

This e-mail, and any attachments thereto, is intended only for use by the addressee(s) named herein and may contain legally privileged and/or confidential information. If you are not the intended recipient of this e-mail (or the person responsible for delivering this document to the intended recipient), you are hereby notified that any dissemination, distribution, printing or copying of this e-mail, and any attachment thereto, is strictly prohibited. If you have received this e-mail in error, please respond to the individual sending the message, and permanently delete the original and any copy of any e-mail and printout thereof.

EPA-R5-2017-011357-25

**Miguel Deltoral /R5/USEPA/US**

To Sheila Kaplan

cc

07/17/2012 08:31 AM

bcc Thomas Poy, Rita Bair, Nicholas Damato, Andrea Porter,  
Mostafa Noureldin, Jeffrey Kempic, Michael Schock, Dana  
Erickson, alan.stark, andrea.putz

Subject Got your voicemail message

Good morning, once again Ms Kaplan

When I got to the office this morning, I had a voicemail from you regarding the sampling protocol(s) used by Chicago.

There are two variants of Lead and Copper Rule compliance sampling protocols. Chicago has used both, and we also used both variants in our study, except that we did not remove faucet aerators for the sampling (this was done in Chicago using the earlier sampling variant). Using each sampling variant in the study, we found similar lead levels compared to Chicago's compliance results (i.e., 90th percentile lead levels well below the lead action level).

If you have any questions, I will be in the office this AM until approximately 10:30am CDT, and then I will be out until approximately 2pm.

Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604  
(312) 886-5253 (P)  
(312) 692-2499 (F)

EPA-R5-2017-011357-26

**Miguel Deltoral /R5/USEPA/US**

To alan.stark, andrea.putz

07/17/2012 08:45 AM

cc

bcc

Subject Fw: Vinyl Chloride in Sauk Village DW

FYI...I didn't know that IEPA set the warning level at 1/2 MCL, so this is not an exceedance of the standard as was portrayed by some media outlets.

Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604  
(312) 886-5253 (P)  
(312) 692-2499 (F)

----- Forwarded by Miguel Deltoral/R5/USEPA/US on 07/17/2012 08:44 AM -----

From: Thomas Poy/R5/USEPA/US  
To: Hyde.Tinka@epamail.epa.gov, Henry.Timothy@epamail.epa.gov,  
Cc: R5 WD GWDW  
Date: 07/17/2012 08:41 AM  
Subject: Vinyl Chloride in Sauk Village DW

---

Tinka/Tim:

Last night, Illinois EPA has notified Sauk Village that it has vinyl chloride in its finished water at 1.68 ppb (MCL = 2.0 ppb). Sauk Village must notify its customers within 5 days and come up with appropriate actions to reduce the levels and prevent an MCL exceedance. This action level of 50% of the MCL for carcinogenic VOCs was put into State law as a result of what happened at Crestwood.

Tom

---

Tom Poy  
Chief, Ground Water and Drinking Water Branch  
USEPA - Region 5  
(312) 886-5991

EPA-R5-2017-011357-27

**Miguel Deltoral /R5/USEPA/US**

To alan.stark, andrea.putz

cc

07/17/2012 09:41 AM

bcc

Subject Fw: Del Toral fact-check: partial pipe replacements

Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604  
(312) 886-5253 (P)  
(312) 692-2499 (F)

----- Forwarded by Miguel Deltoral/R5/USEPA/US on 07/17/2012 09:40 AM -----

From: Hilary Niles <niles@american.edu>  
To: Miguel Deltoral/R5/USEPA/US@EPA,  
Date: 06/28/2012 06:00 PM  
Subject: Re: Re: Fw: Re: Del Toral fact-check: partial pipe replacements

---

Thanks so much!

All best,  
Hilary

---

Hilary A. Niles  
Researcher-in-Residence  
Investigative Reporting Workshop  
niles@american.edu  
202-885-3601 work  
603-969-8004 cell

-----Miguel Deltoral <Deltoral.Miguel@epamail.epa.gov> wrote: -----

To: Hilary Niles <niles@american.edu>  
From: Miguel Deltoral <Deltoral.Miguel@epamail.epa.gov>  
Date: 06/28/2012 02:38PM  
Subject: Re: Re: Fw: Re: Del Toral fact-check: partial pipe replacements

Hello Ms Niles,

All's well that ends well.

The study was conducted entirely within one public water system (Chicago), and involved 32 single-family residences with service lines made of lead. As I mentioned, the purpose of the study was to evaluate the effectiveness of the current sampling protocol in the U.S. EPA's Lead and Copper Rule (promulgated in 1991). A variety of sampling protocols were used to collect samples from March 2011 through October 2011 from these homes, and I am in the process of writing up those findings for publication later this year.

Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604  
(312) 886-5253 (P)  
(312) 692-2499 (F)

-----Hilary Niles <niles@american.edu> wrote: -----

To: Miguel Deltoral/R5/USEPA/US@EPA  
From: Hilary Niles <niles@american.edu>  
Date: 06/28/2012 01:09PM  
Subject: Re: Re: Fw: Re: Del Toral fact-check: partial pipe replacements

Hello Mr. Del Toral,

Thank you so much for the quick response. I'm glad that the quotes included were the same ones you were expecting. I do feel bad that I caused any concern.

I appreciate your clarification about the sampling study. That is a distinction I had come across in my document fact-checking, and had flagged for review with Sheila and our editor. Your note helps clarify it.

One extra question, just so that I understand the entire context: Was that sampling study (March 2011 through October 2011) conducted entirely or partially in Chicago? What I'm hoping to learn is the geographic scope of the study: how many water systems it included, for example.

Many thanks,  
Hilary

---

Hilary A. Niles  
Researcher-in-Residence  
Investigative Reporting Workshop  
niles@american.edu  
202-885-3601 work  
603-969-8004 cell

-----Miguel Deltoral <Deltoral.Miguel@epamail.epa.gov> wrote: -----

To: Hilary Niles <niles@american.edu>  
From: Miguel Deltoral <Deltoral.Miguel@epamail.epa.gov>  
Date: 06/28/2012 01:53PM  
Subject: Re: Fw: Re: Del Toral fact-check: partial pipe replacements

Hi Hilary,

The quote cited below is what I recall Ms. Kaplan asking to use, so thank you for the clarification. There are a few suggested edits below for clarity in [BRACKETS/CAP LETTERS]. If you have any questions, please feel free to call/email me.

**Notes 28, 29, 30:**

\*\*\*

Del Toral says he is particularly concerned about the impact of partial pipe replacements on poor families, who are more likely to live in neighborhoods with lead in their water, and are less likely to have the funds to replace their section of the line. “In general people do not replace their portions and I think it’s just overall people do not have that kind of cash around,” he said. “For a poor family that is just out of the question, so it’s an environmental justice [ISSUE].”

**Notes 44, 45:**

Most water systems stopped installing them [lead drinking water service lines] in the first half of the last century, but in Chicago, the practice continued [AS REQUIRED BY CITY ORDINANCE] until 1986, when [LEAD PIPES WERE] banned [FROM FUTURE INSTALLATION IN THE SAFE DRINKING WATER ACT AMENDMENTS].

**Notes 67, 68, 69, 70:**

[The following excerpt is preceded by a reference to utilities being able to choose which homes to sample in their lead testing.]

One example [he (a source in the story other than you, Mr. Del Toral)] points to is Chicago, which in twenty years has never exceeded the 15 parts per billion limit. Last spring, however, EPA began conducting its own tests, and found lead levels as high as 36.7 ppb. Miguel Del Toral said his study of [EPA'S SAMPLING PROTOCOL IN] Chicago [WAS CONDUCTED FROM MARCH 2011 THROUGH OCTOBER 2011]. Del Toral said that he was surprised to find it difficult to recruit volunteers to get their taps tested .

[THE SAMPLING STUDY CONDUCTED IN CHICAGO WAS NOT A STUDY OF CHICAGO, IT IS A SAMPLING STUDY TO EVALUATE THE EFFECTIVENESS OF EPA'S CURRENT SAMPLING PROTOCOL UNDER THE LEAD AND COPPER RULE IN MEASURING THE LEVEL OF LEAD CORROSION THAT IS OCCURRING. THE SAMPLING WAS CONDUCTED FROM MARCH 2011 THROUGH OCTOBER 2011 AND WE ARE IN THE PROCESS OF DRAFTING/PUBLISHING THE FINDINGS.]

Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604

(312) 886-5253 (P)  
(312) 692-2499 (F)

-----Hilary Niles <niles@american.edu> wrote: -----

To: Miguel Deltoral/R5/USEPA/US@EPA  
From: Hilary Niles <niles@american.edu>  
Date: 06/28/2012 09:39AM  
Subject: Re: Fw: Re: Del Toral fact-check: partial pipe replacements

Hello Mr. Del Toral,

Again, I apologize for any concern I may have raised. There are not 10 quotes, but 10 references to her interview with you that Sheila Kaplan included in her footnotes. These footnotes are for internal fact-checking purposes only.

Following are excerpts copied directly from the draft of the article :

\*\*\*

**Note 26:**

Nobody knows exactly how many voluntary replacements are done each year, because they are not required to be reported to either the federal or state governments.

**Notes 28, 29, 30:**

Miguel del Toral, an EPA water specialist in Chicago, expressed frustration with the lack of information and the prevalence of partial pipe replacements, both required and voluntary. "How many partials have been done? We don't even know how many lead service lines there are out there. None of that is reportable," Del Toral said. "In some cases they say they notify the residents, but all they do is notify them that their water is going to be cut off while they replace the lines. There is not any kind of educational material to inform them that their lead levels will go up."

Del Toral says he is particularly concerned about the impact of partial pipe replacements on poor families, who are more likely to live in neighborhoods with lead in their water, and are less likely to have the funds to replace their section of the line. "In general people do not replace their portions and I think it's just overall people do not have that kind of cash around," he said. "For a poor family that is just out of the question, so it's an environmental justice [ISSUE]question."

**Notes 44, 45:**

Most water systems stopped installing them [lead drinking water service lines] in the first half of the last century, but in Chicago, the practice continued until 1986, when lead was banned in new plumbing and plumbing repairs.

**Notes 67, 68, 69, 70:**

[The following excerpt is preceded by a reference to utilities being able to choose which homes to sample in their lead testing.]

One example [he (a source in the story other than you, Mr. Del Toral)] points to is Chicago, which in twenty years has never exceeded the 15 parts per billion limit. Last spring, however, EPA began conducting its own tests, and found lead levels as high as 36.7 ppb. Miguel Del Toral said his study of Chicago is ongoing. Del Toral said that he was surprised to find it difficult to recruit volunteers to get their taps tested.

\*\*\*

Please let me know if you have any questions. The reason we do this thorough fact-checking is to make sure that all is accurate before publication.

Thank you,  
Hilary

---

Hilary A. Niles  
Researcher-in-Residence  
Investigative Reporting Workshop  
niles@american.edu  
202-885-3601 work  
603-969-8004 cell

-----Miguel Deltoral <Deltoral.Miguel@epamail.epa.gov> wrote: -----

To: "Hilary Niles" <niles@american.edu>  
From: Miguel Deltoral <Deltoral.Miguel@epamail.epa.gov>  
Date: 06/27/2012 09:03PM  
Subject: Fw: Re: Del Toral fact-check: partial pipe replacements

I forgot to mention that I will likely be out all day on Friday, so if you can, please send me whatever you would like me to review as early as you can tomorrow.

Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604

(312) 886-5253 (P)  
(312) 692-2499 (F)

-----Forwarded by Miguel Deltoral/R5/USEPA/US on 06/27/2012 07:58PM -----

To: Hilary Niles <niles@american.edu>  
From: Miguel Deltoral/R5/USEPA/US  
Date: 06/27/2012 07:11PM  
Subject: Re: Del Toral fact-check: partial pipe replacements

Hello Ms. Niles,

I think email would work best since I am running around quite a bit these days . Please send me whatever you need me to look over, and I will get back to you as soon as I can.

Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604  
(312) 886-5253 (P)  
(312) 692-2499 (F)

-----Hilary Niles <niles@american.edu> wrote: -----

To: Miguel Deltoral/R5/USEPA/US@EPA  
From: Hilary Niles <niles@american.edu>  
Date: 06/27/2012 05:33PM  
Subject: Del Toral fact-check: partial pipe replacements

Hello Mr. Del Toral,

I am the fact-checker for Sheila Kaplan and Corbin Hiar's story on partial pipe replacement, for the Investigative Reporting Workshop. We are finishing up the drafting process, and I'm writing to schedule a time when you and I could speak by phone to confirm the accuracy of your quotes in the story.

We plan to publish next week (by July 3) so I'm hoping to touch base with you tomorrow (Thursday) 6/28 or Friday 6/29. I am available anytime (morning or evening is fine, if that works best for you) through 4pm Friday.

So far my schedule is open. I have many fact-checking interviews to conduct, so the sooner I hear back from you, the more I will be able to work around your schedule. You are quoted approximately 10 times in the current draft of the story, so I anticipate our conversation will last at least 20 minutes.

If you prefer to conduct the fact-check by email, just let me know.

Thank you for your time. I look forward to hearing back from you soon.

All best,  
Hilary

---

Hilary A. Niles  
Researcher-in-Residence  
Investigative Reporting Workshop  
niles@american.edu  
202-885-3601 work  
603-969-8004 cell

EPA-R5-2017-011357-29

**Miguel Deltoral /R5/USEPA/US**

To Sheila Kaplan

cc

07/18/2012 02:36 PM

bcc Thomas Poy, Rita Bair, Nicholas Damato, Jeffrey Kempic,  
Dana Erickson, "Alan Stark", "Andrea Putz", Andrea Porter

Subject Re: one last question

There is certainly that potential based on a number of well established factors . While I've seen/read many studies on lead corrosion that look at any number of factors that result in high lead , it's pretty hard to find apples to apples comparisons where we have the same water quality/chemistry, the same treatment chemicals/history, etc.

Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604  
(312) 886-5253 (P)  
(312) 692-2499 (F)

-----Sheila Kaplan <[skaplan@ethics.harvard.edu](mailto:skaplan@ethics.harvard.edu)> wrote: -----

To: Miguel Deltoral/R5/USEPA/US@EPA

From: Sheila Kaplan <[skaplan@ethics.harvard.edu](mailto:skaplan@ethics.harvard.edu)>

Date: 07/17/2012 03:24PM

Subject: Re: one last question

Thanks so much. Do you think that there is a risk of spikes the way they do it in Chicago ? I don't have to quote you on this, I just want to understand it. Best, SK

On Tue, Jul 17, 2012 at 1:08 PM, Miguel Deltoral <[Deltoral.Miguel@epamail.epa.gov](mailto:Deltoral.Miguel@epamail.epa.gov)> wrote:

I can understand the confusion. A partial lead service line replacement, whether it's required by the LCR or whether it is done when a water main is replaced, is typically understood to mean that the public water system removes the entire portion of the lead line that is owned by the public water system . Chicago has never triggered lead service line replacement under the LCR, and partial lead line replacements as defined above are not done in Chicago when water mains are replaced . When a main is replaced here, there is a short segment of the lead line in the immediate vicinity of the water main that is removed, and replaced with a copper pipe/connection to the new water main. So depending on how the question is asked I can see that you might get different answers .

Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604  
[\(312\) 886-5253](tel:(312)886-5253) (P)  
[\(312\) 692-2499](tel:(312)692-2499) (F)

From: Sheila Kaplan <[skaplan@ethics.harvard.edu](mailto:skaplan@ethics.harvard.edu)>  
To: Miguel Deltoral/R5/USEPA/US@EPA,

Date: 07/17/2012 12:52 PM  
Subject: one last question

---

Thank you for your note. It was very helpful and I made the changes. Just one more question: Is it possible that Chicago does not do any lead service line replacements, during routine maintenance, emergencies or on a voluntary basis? That is what one of the engineers there told my research assistant. But, a different engineer said they do, so we are confused.

Thanks, SK

On Tue, Jul 17, 2012 at 6:31 AM, Miguel Deltoral <[Deltoral.Miguel@epamail.epa.gov](mailto:Deltoral.Miguel@epamail.epa.gov)> wrote:

Good morning, once again Ms Kaplan

When I got to the office this morning, I had a voicemail from you regarding the sampling protocol(s) used by Chicago.

There are two variants of Lead and Copper Rule compliance sampling protocols. Chicago has used both, and we also used both variants in our study, except that we did not remove faucet aerators for the sampling (this was done in Chicago using the earlier sampling variant). Using each sampling variant in the study, we found similar lead levels compared to Chicago's compliance results (i.e., 90th percentile lead levels well below the lead action level).

If you have any questions, I will be in the office this AM until approximately 10:30am CDT, and then I will be out until approximately 2pm.

Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604  
[\(312\) 886-5253](tel:(312)886-5253) (P)  
[\(312\) 692-2499](tel:(312)692-2499) (F)

EPA-R5-2017-011357-30

"Putz, Andrea"  
<Andrea.Putz@cityofchicago.org>

08/08/2012 11:38 AM

To Miguel Deltoral

cc

bcc

Subject RE: NBC.com story on Lead and Copper Rule

Thanks for sending – we hadn't seen it.

**From:** Miguel Deltoral [mailto:Deltoral.Miguel@epamail.epa.gov]

**Sent:** Wednesday, August 08, 2012 10:30 AM

**To:** Stark, Alan; Putz, Andrea

**Subject:** Fw: NBC.com story on Lead and Copper Rule

**Importance:** High

FYI, in case you folks get calls...

Sheila Kaplan's story on Lead Service Line Replacement was released today. See

<http://openchannel.nbcnews.com/news/2012/08/08/13179335-how-an-epa-project-backfi-red-endangering-drinking-water-with-lead>

Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604  
(312) 886-5253 (P)  
(312) 692-2499 (F)

This e-mail, and any attachments thereto, is intended only for use by the addressee(s) named herein and may contain legally privileged and/or confidential information. If you are not the intended recipient of this e-mail (or the person responsible for delivering this document to the intended recipient), you are hereby notified that any dissemination, distribution, printing or copying of this e-mail, and any attachment thereto, is strictly prohibited. If you have received this e-mail in error, please respond to the individual sending the message, and permanently delete the original and any copy of any e-mail and printout thereof.

EPA-R5-2017-011357-31

**Miguel Deltoral /R5/USEPA/US**

08/09/2012 05:47 AM

To "Andrea Putz", "Alan Stark"

cc

bcc Andrea Porter, Mostafa Nouredin, Thomas Poy, Rita Bair,  
Nicholas Damato, Michael Schock

Subject RE: NBC.com story on Lead and Copper Rule

Just FYI,

My initial interview with Sheila Kaplan was months ago , so the quote on the notice provided to residents was not directed at Chicago. I must confess, though, that I was not real happy with the attached notice I got recently from the folks working on the main replacement on my street (South Millard Ave). I do agree with the guy in Pittsburgh about waiting for direction from EPA on what should be in the notice , but as you know, EPA tends to make decisions on a geologic time scale. Hopefully this article will give EPA-HQ the long-overdue kick in the pants...

Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604  
(312) 886-5253 (P)  
(312) 692-2499 (F)

-----"Putz, Andrea" <Andrea.Putz@cityofchicago.org> wrote: -----

To: Miguel Deltoral/R5/USEPA/US@EPA  
From: "Putz, Andrea" <Andrea.Putz@cityofchicago.org>  
Date: 08/08/2012 11:40AM  
Subject: RE: NBC.com story on Lead and Copper Rule

Thanks for sending – we hadn't seen it.

**From:** Miguel Deltoral [mailto:Deltoral.Miguel@epamail.epa.gov]  
**Sent:** Wednesday, August 08, 2012 10:30 AM  
**To:** Stark, Alan; Putz, Andrea  
**Subject:** Fw: NBC.com story on Lead and Copper Rule  
**Importance:** High

FYI, in case you folks get calls...

Sheila Kaplan's story on Lead Service Line Replacement was released today. See

<http://openchannel.nbcnews.com/news/2012/08/08/13179335-how-an-epa-project-backfi-red-endangering-drinking-water-with-lead>

Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604  
(312) 886-5253 (P)  
(312) 692-2499 (F)

This e-mail, and any attachments thereto, is intended only for use by the addressee(s) named herein and may contain legally privileged and/or confidential information. If you are not the intended recipient of this e-mail (or the person responsible for delivering this document to the intended recipient), you are hereby notified that any dissemination, distribution, printing or copying of this e-mail, and any attachment thereto, is strictly prohibited. If you have received this e-mail in error, please respond to the individual sending the message, and permanently delete the original and any copy of any e-mail and printout thereof.



Chicago Water Main Replacement Notice.pdf

EPA-R5-2017-011357-32

**Miguel Deltoral /R5/USEPA/US**

To "Alan Stark", "Andrea Putz"

cc

08/09/2012 03:06 PM

bcc

Subject Lead in Drinking Water and Human Blood Lead Levels in the United States

In case you haven't seen this...not sure what the impetus for this is/was...I was unaware that this was in the works.

### **Lead in Drinking Water and Human Blood Lead Levels in the United States**

Since 1970, considerable reductions in lead concentrations have occurred in air, tap water, food, dust, and soil, which significantly reduced the BLLs of children throughout the United States. However, children are still being exposed to lead, and no safe blood lead threshold for children has been identified. This review describes a selection of peer-reviewed publications on childhood lead poisoning, sources of lead exposure for adults and children, particularly children aged <6 years, and the Safe Drinking Water Act Lead and Copper Rule of 1991. What is known and unknown about tap water as a source of lead exposure is summarized, and ways that children might be exposed to lead in drinking water are identified. When investigating cases of children with BLLs at or above the reference value established as the 97.5 percentile of the distribution of BLLs in U.S. children aged 1-5 years, drinking water should be considered as a source.

Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604  
(312) 886-5253 (P)



(312) 692-2499 (F) CDC Blood Lead US.pdf

EPA-R5-2017-011357-33

**"Putz, Andrea"**  
<Andrea.Putz@cityofchicago.org>

08/20/2012 04:57 PM

To Miguel Deltoral

cc "Stark, Alan"

bcc

Subject FW: Easton Construction Flyer

Miguel,

Thought you'd be interested to see the creativity from one of our local vendors ...ugh!

Thanks,

Andrea

**From:** Krueger, Hans

**Sent:** Friday, August 17, 2012 8:29 AM

**To:** Putz, Andrea

**Subject:** FW: Easton Construction Flyer

After a 2nd look, the flier doesn't sound as bad as originally thought but wanted to pass it on anyway.

Thanks,

Hans Krueger  
Department of Water Management  
Bureau of Engineering Services  
312-742-3611

---

**From:** Doyle, Bill [Bill.Doyle@ctrwater.net]

**Sent:** Thursday, August 16, 2012 5:28 PM

**To:** Krueger, Hans

**Subject:** Easton Construction Flyer

Hans-

The Easton flyer is attached. I will bring the original tomorrow - the scan quality is lacking

Thanks

Bill

William M. Doyle  
CTR Construction Group  
Dept. of Water Management

312.742.1883 / desk

312.217.1636 / cell



Easton Construction Flyer.pdf

EPA-R5-2017-011357-34

**Miguel Deltoral /R5/USEPA/US**

08/21/2012 07:26 AM

To "Andrea Putz"

cc "Alan Stark"

bcc Michael Schock

Subject FW: Easton Construction Flyer

I actually don't think it's too bad. Then again, I am used to the FOIAs that we regularly get from commercial labs & service/treatment companies for PWSs in violation so they can essentially do the same thing. The one issue I guess is that they say the lines are near the end of their useful life but as you know, the lead pipes are used because they last forever and are low/no maintenance. I emailed Easton for a cleaner copy (pdf), and will shoot that to you once I get it.

As you know I am a supporter of the notion of getting these lines out completely, even if it takes 40 years. We are getting more data (not surprisingly) that the levels within the LSLs far exceed the first-draw results, which we already knew here. As a private citizen of Chicago, I had given thought to advocating for the removal of all lead lines in the city as part of the main work. Just seems like an opportunity is passing. Anyhow, since I work for EPA and also sit on all of the national regulatory development workgroups, my name is plastered all over the place. I don't think that would go un-noticed, so I decided not to do that as I think it would turn into a circus rather than a constructive dialogue.

It just seems to make more sense to do it now with the main work rather than having individuals ripping up the streets on an adhoc basis. The customers would really pay the full cost of replacement, either through water rates/taxes, and I don't anticipate there would be a situation like in Madison, WI where folks without lead lines objected to paying. Different places use different approaches. DC offers a low-income subsidy & Boston has an incentive program to encourage the replacement of the private portion. Madison also used a subsidy after some forth between opponents and proponents (links below). I looked into some costs here (private plumbers) and some said the permit cost is almost as much or more than the cost of the plumbing work. Do you know what the City permit fee is to replace the service? For our new home building permit, that cost me around \$2,500, so I wanted to check what the real cost was since I think they may be padding their prices (just a guess).

Wash DC

<http://dhcd.dc.gov/sites/default/files/dc/sites/dhcd/publication/attachments/LeadwaterInfo-Feb2012Final.pdf>

Boston

[http://www.bwsc.org/SERVICES/Programs/lead\\_incentive.PDF](http://www.bwsc.org/SERVICES/Programs/lead_incentive.PDF)

Madison, WI

<http://www.cityofmadison.com/water/programs/leadReplacement.cfm>

Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604  
(312) 886-5253 (P)  
(312) 692-2499 (F)

-----"Putz, Andrea" <Andrea.Putz@cityofchicago.org> wrote: -----

To: Miguel Deltoral/R5/USEPA/US@EPA

From: "Putz, Andrea" <Andrea.Putz@cityofchicago.org>  
Date: 08/20/2012 04:57PM  
Cc: "Stark, Alan" <Alan.Stark@cityofchicago.org>  
Subject: FW: Easton Construction Flyer

Miguel,

Thought you'd be interested to see the creativity from one of our local vendors...ugh!

Thanks,  
Andrea

**From:** Krueger, Hans  
**Sent:** Friday, August 17, 2012 8:29 AM  
**To:** Putz, Andrea  
**Subject:** FW: Easton Construction Flyer

After a 2nd look, the flier doesn't sound as bad as originally thought but wanted to pass it on anyway.

Thanks,

Hans Krueger

Department of Water Management

Bureau of Engineering Services

312-742-3611

---

**From:** Doyle, Bill [Bill.Doyle@ctrwater.net]  
**Sent:** Thursday, August 16, 2012 5:28 PM  
**To:** Krueger, Hans  
**Subject:** Easton Construction Flyer

Hans-

The Easton flyer is attached. I will bring the original tomorrow - the scan quality is lacking

Thanks

Bill

William M. Doyle

CTR Construction Group

Dept. of Water Management

312.742.1883 / desk

312.217.1636 / cell

[attachment "Easton Construction Flyer.pdf" removed by Miguel Deltoral/R5/USEPA/US]

EPA-R5-2017-011357-35

**Miguel Deltoral /R5/USEPA/US**

To "Alan Stark"

cc

09/21/2012 02:23 PM

bcc

Subject Second Notice for Main Replacement Work

Hi Alan,

Just FYI, I think I told you the second notice we got before they did the actual cutting of the service line from the old main and connection to the new main was blank, but this is what I meant (see attached). The work was performed in mid-August, not July, so we had no clue when they were shutting off our water until we saw them in front of the building. I think they just posted left over notices from the original trenchwork .

Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604  
(312) 886-5253 (P)



(312) 692-2499 (F) Millard 359.jpg Millard 360.jpg

EPA-R5-2017-011357-36

**Miguel Deltoral /R5/USEPA/US**

To "Andrea Putz"

09/21/2012 02:32 PM

cc

bcc

Subject Fw: Second Notice for Main Replacement Work

Sorry, forgot to copy you on this...

Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604  
(312) 886-5253 (P)  
(312) 692-2499 (F)

-----Forwarded by Miguel Deltoral/R5/USEPA/US on 09/21/2012 02:32PM -----

To: "Alan Stark" <alan.stark@cityofchicago.org>  
From: Miguel Deltoral/R5/USEPA/US  
Date: 09/21/2012 02:23PM  
Subject: Second Notice for Main Replacement Work

*(See attached file: Millard 359.jpg)*

*(See attached file: Millard 360.jpg)*

Hi Alan,

Just FYI, I think I told you the second notice we got before they did the actual cutting of the service line from the old main and connection to the new main was blank, but this is what I meant (see attached). The work was performed in mid-August, not July, so we had no clue when they were shutting off our water until we saw them in front of the building. I think they just posted left over notices from the original trenchwork.

Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604  
(312) 886-5253 (P)



(312) 692-2499 (F) Millard 359.jpg Millard 360.jpg

EPA-R5-2017-011357-53

"Stark, Alan"  
<Alan.Stark@cityofchicago.org>

09/22/2012 12:51 PM

To Miguel Deltoral

cc

bcc

Subject RE: Geyser Pics

Hi Miguel

Thank you for the photos it appears to be private contractor flushing their work. I would suspect it to be a connection was made from existing main to the new main. Normally, they will flush before we are called to sample before they open the valve. However, they need to control it so I did call the Construction Manager so they control the flow.

Alan  
Department of Water Management  
Jardine Water Purification Plant  
Chicago, Illinois 60611  
312-744-7733 office  
312-742-2364 fax

---

**From:** Miguel Deltoral [Deltoral.Miguel@epamail.epa.gov]  
**Sent:** Saturday, September 22, 2012 12:19 PM  
**To:** Stark, Alan  
**Subject:** Geyser Pics

Hi Alan,

Here are the pics:

Pic 009a - That's what I saw at 5am out my window

Pic 014a - Close of of the spout

Pic 019 - The guys working on the corner (not City) stuck the traffic barrel over the geyser so they could work

Pic 017 - Close up of the copper pipe/valve sticking out of the hole. This pipe is not where the water was/is coming from. The water is still shooting straight up into the barrel.

Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604  
(312) 886-5253 (P)  
(312) 692-2499 (F)

This e-mail, and any attachments thereto, is intended only for use by the addressee(s) named herein and may contain legally privileged and/or confidential information. If you are not the intended recipient of this e-mail (or the person responsible for delivering this document to the intended recipient), you are hereby notified that any dissemination, distribution, printing or copying of this e-mail, and any attachment thereto, is strictly prohibited. If you have received this e-mail in error, please respond to the individual sending the message, and permanently delete the original and any copy of any e-mail and printout thereof.

EPA-R5-2017-011357-74

**Miguel Deltoral /R5/USEPA/US**

To alan.stark, andrea.putz

cc

10/02/2012 08:54 AM

bcc

Subject Fw: Chicago Study - System Info

I forgot mention...I believe the Chicago WQ data in the first table is from the City's quarterly WQ reports (2011?). I wrote that down somewhere and of course I can't find it right now.

Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604  
(312) 886-5253 (P)  
(312) 692-2499 (F)

----- Forwarded by Miguel Deltoral/R5/USEPA/US on 10/02/2012 08:52 AM -----

From: Miguel Deltoral/R5/USEPA/US  
To: alan.stark@cityofchicago.org, andrea.putz@cityofchicago.org,  
Date: 10/02/2012 08:51 AM  
Subject: Chicago Study - System Info

---

Howdy folks,

I am finishing up the initial draft of the paper and I wanted to run the system info section by you folks while I am working on the other pieces. Please review and provide any comments/edits.

Q for you: The LCR allows use of 50% LSL sites and 50% non-LSL sites. I can't recall if I've asked whether you use a 50/50 split or all LSL sites. If you have used different splits over the years, please let me know which/when, if it's readily known. Otherwise don't spend a lot of time on the which/when.

[attachment "Chicago Study-System Information v2 10-02-12.docx" deleted by Miguel Deltoral/R5/USEPA/US]

Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604  
(312) 886-5253 (P)  
(312) 692-2499 (F)

EPA-R5-2017-011357-75

"Putz, Andrea"  
<Andrea.Putz@cityofchicago.org>

10/02/2012 09:57 AM

To Miguel Deltoral, "Stark, Alan"

cc

bcc

Subject RE: Chicago Study - System Info

It's from the Comprehensive Chemical Analysis on our website...

<http://www.cityofchicago.org/content/dam/city/depts/water/WaterQtyResultsNRpts/ccReports/cca11.pdf>

Please note that they are composite samples taken from North for JWPP and South for SWPP for the Distribution samples.

**From:** Miguel Deltoral [mailto:Deltoral.Miguel@epamail.epa.gov]

**Sent:** Tuesday, October 02, 2012 8:55 AM

**To:** Stark, Alan; Putz, Andrea

**Subject:** Fw: Chicago Study - System Info

I forgot mention...I believe the Chicago WQ data in the first table is from the City's quarterly WQ reports (2011?). I wrote that down somewhere and of course I can't find it right now.

Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604  
(312) 886-5253 (P)  
(312) 692-2499 (F)

----- Forwarded by Miguel Deltoral/R5/USEPA/US on 10/02/2012 08:52 AM -----

From: Miguel Deltoral/R5/USEPA/US

To: [alan.stark@cityofchicago.org](mailto:alan.stark@cityofchicago.org), [andrea.putz@cityofchicago.org](mailto:andrea.putz@cityofchicago.org),

Date: 10/02/2012 08:51 AM

Subject: Chicago Study - System Info

Howdy folks,

I am finishing up the initial draft of the paper and I wanted to run the system info section by you folks while I am working on the other pieces. Please review and provide any comments/edits.

Q for you: The LCR allows use of 50% LSL sites and 50% non-LSL sites. I can't recall if I've asked whether you use a 50/50 split or all LSL sites. If you have used different splits over the years, please let me know which/when, if it's readily known. Otherwise don't spend a lot of time on the which/when.

[attachment "Chicago Study-System Information v2 10-02-12.docx" deleted by Miguel]

Deltoral/R5/USEPA/US]  
Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604  
(312) 886-5253 (P)  
(312) 692-2499 (F)

This e-mail, and any attachments thereto, is intended only for use by the addressee(s) named herein and may contain legally privileged and/or confidential information. If you are not the intended recipient of this e-mail (or the person responsible for delivering this document to the intended recipient), you are hereby notified that any dissemination, distribution, printing or copying of this e-mail, and any attachment thereto, is strictly prohibited. If you have received this e-mail in error, please respond to the individual sending the message, and permanently delete the original and any copy of any e-mail and printout thereof.

EPA-R5-2017-011357-76

**Miguel Deltoral /R5/USEPA/US**

To "Putz, Andrea"

10/02/2012 10:00 AM

cc

bcc

Subject RE: Chicago Study - System Info

Yes, and I think it was 2011 data only.

Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604  
(312) 886-5253 (P)  
(312) 692-2499 (F)

"Putz, Andrea"

It's from the Comprehensive Chemical...

10/02/2012 09:57:10 AM

From: "Putz, Andrea" <Andrea.Putz@cityofchicago.org>  
To: Miguel Deltoral/R5/USEPA/US@EPA, "Stark, Alan" <Alan.Stark@cityofchicago.org>,  
Date: 10/02/2012 09:57 AM  
Subject: RE: Chicago Study - System Info

---

It's from the Comprehensive Chemical Analysis on our website...

<http://www.cityofchicago.org/content/dam/city/depts/water/WaterQltyResultsNRpts/ccReports/cca11.pdf>

Please note that they are composite samples taken from North for JWPP and South for SWPP for the Distribution samples.

**From:** Miguel Deltoral [mailto:Deltoral.Miguel@epamail.epa.gov]  
**Sent:** Tuesday, October 02, 2012 8:55 AM  
**To:** Stark, Alan; Putz, Andrea  
**Subject:** Fw: Chicago Study - System Info

I forgot mention...I believe the Chicago WQ data in the first table is from the City's quarterly WQ reports (2011?). I wrote that down somewhere and of course I can't find it right now.

Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604  
(312) 886-5253 (P)  
(312) 692-2499 (F)

----- Forwarded by Miguel Deltoral/R5/USEPA/US on 10/02/2012 08:52 AM -----

From: Miguel Deltoral/R5/USEPA/US

To: [alan.stark@cityofchicago.org](mailto:alan.stark@cityofchicago.org), [andrea.putz@cityofchicago.org](mailto:andrea.putz@cityofchicago.org),  
Date: 10/02/2012 08:51 AM  
Subject: Chicago Study - System Info

---

Howdy folks,

I am finishing up the initial draft of the paper and I wanted to run the system info section by you folks while I am working on the other pieces. Please review and provide any comments/edits.

Q for you: The LCR allows use of 50% LSL sites and 50% non-LSL sites. I can't recall if I've asked whether you use a 50/50 split or all LSL sites. If you have used different splits over the years, please let me know which/when, if it's readily known. Otherwise don't spend a lot of time on the which/when.

[attachment "Chicago Study-System Information v2 10-02-12.docx" deleted by Miguel  
Deltoral/R5/USEPA/US]  
Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604  
(312) 886-5253 (P)  
(312) 692-2499 (F)

This e-mail, and any attachments thereto, is intended only for use by the addressee(s) named herein and may contain legally privileged and/or confidential information. If you are not the intended recipient of this e-mail (or the person responsible for delivering this document to the intended recipient), you are hereby notified that any dissemination, distribution, printing or copying of this e-mail, and any attachment thereto, is strictly prohibited. If you have received this e-mail in error, please respond to the individual sending the message, and permanently delete the original and any copy of any e-mail and printout thereof.

EPA-R5-2017-011357-78

**Miguel Deltoral /R5/USEPA/US**

To "Putz, Andrea"

cc alan.stark

10/02/2012 12:04 PM

bcc

Subject RE: Chicago Study - System Info

Thanks!

I'll incorporate the edits, and get the whole draft to you folks hopefully early next week so you can see it all ahead of my (TBD) visit there.

Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604  
(312) 886-5253 (P)  
(312) 692-2499 (F)

"Putz, Andrea"

[Here are some quick edits from us. Loo...](#)

10/02/2012 10:02:46 AM

From: "Putz, Andrea" <Andrea.Putz@cityofchicago.org>  
To: Miguel Deltoral/R5/USEPA/US@EPA, "Stark, Alan" <Alan.Stark@cityofchicago.org>,  
Date: 10/02/2012 10:02 AM  
Subject: RE: Chicago Study - System Info

---

[Here are some quick edits from us. Looks good.](#)

We believe they are almost all LSL sites in past compliance periods – there are a few we haven't been able to confirm and have removed from our testing list. Otherwise, we sent a plumber out this year to confirm all the rest were lead. This compliance period, we are sure through inspection they are all lead services.

**From:** Miguel Deltoral [mailto:Deltoral.Miguel@epamail.epa.gov]  
**Sent:** Tuesday, October 02, 2012 8:52 AM  
**To:** Stark, Alan; Putz, Andrea  
**Subject:** Chicago Study - System Info

Howdy folks,

I am finishing up the initial draft of the paper and I wanted to run the system info section by you folks while I am working on the other pieces. Please review and provide any comments/edits.

Q for you: The LCR allows use of 50% LSL sites and 50% non-LSL sites. I can't recall if I've asked whether you use a 50/50 split or all LSL sites. If you have used different splits over the years, please let me know which/when, if it's readily known. Otherwise don't spend a lot of time on the which/when.

Miguel A. Del Toral

Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604  
(312) 886-5253 (P)  
(312) 692-2499 (F)

This e-mail, and any attachments thereto, is intended only for use by the addressee(s) named herein and may contain legally privileged and/or confidential information. If you are not the intended recipient of this e-mail (or the person responsible for delivering this document to the intended recipient), you are hereby notified that any dissemination, distribution, printing or copying of this e-mail, and any attachment thereto, is strictly prohibited. If you have received this e-mail in error, please respond to the individual sending the message, and permanently delete the original and any copy of any e-mail and printout thereof.[attachment "Chicago Study-System Information v2 10-02-12.docx" deleted by Miguel Deltoral/R5/USEPA/US]

EPA-R5-2017-011357-80

**Miguel Deltoral /R5/USEPA/US**

To "Alan Stark", "Andrea Putz"

cc

10/03/2012 06:42 AM

bcc Michael Schock

Subject One more edit

Just FYI - after I sent the file to you, I added the text below in brackets to the last paragraph (first sentence) before the acknowledgments.

All sites used in this study were single-family homes **[with lead service lines]**.

Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604  
(312) 886-5253 (P)  
(312) 692-2499 (F)

EPA-R5-2017-011357-81

**Lisa Donahue /R3/USEPA/US**

10/03/2012 12:06 PM

To Miguel Deltoral, "Stark, Alan", Thomas Poy, vzare

cc KarenD Johnson, Dave McMillan

bcc

Subject Amtrak/Chicago post incident evaluation

Hello All,

I propose 9 am (eastern) on Tuesday, October 9, for a conference call to evaluate the situation that happened at the Amtrak yard in Chicago. I think there is an opportunity to assess what happened that was good/bad/difficult, and gather lessons to apply for the future.

I propose the following simple agenda:

- What happened that went well
- What went poorly
- Barriers
- Recommendations for improvement

I will forward a call-in number by tomorrow. Please let me know if you are available at that time.

Thank you

Lisa Donahue

Lisa M. Donahue  
Ground Water and Enforcement Branch  
Federal Women's Program Manager  
EPA Region III (3WP22)  
1650 Arch St.  
Philadelphia, PA 19103-2029  
215-814-2062 (phone)

What you do makes a difference, and you have to decide what kind of difference you want to make. - Jane Goodall

EPA-R5-2017-011357-83

**Miguel Deltoral /R5/USEPA/US**

10/04/2012 05:54 AM

To Lisa Donahue  
cc "Alan Stark", KarenD Johnson, Thomas Poy, "Dave McMillan", vzare  
bcc Thomas Poy, Rita Bair  
Subject Re: Amtrak/Chicago post incident evaluation

Sounds good. 9am works for me.

Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604  
(312) 886-5253 (P)  
(312) 692-2499 (F)

-----Lisa Donahue/R3/USEPA/US wrote: -----

To: Miguel Deltoral/R5/USEPA/US@EPA, "Stark, Alan" <Alan.Stark@cityofchicago.org>, Thomas Poy/R5/USEPA/US@EPA, vzare@amtrak.com  
From: Lisa Donahue/R3/USEPA/US  
Date: 10/03/2012 12:06PM  
Cc: KarenD Johnson/R3/USEPA/US@EPA, Dave McMillan <DAVE.MCMILLAN@Illinois.gov>  
Subject: Amtrak/Chicago post incident evaluation

Hello All,

I propose 9 am (eastern) on Tuesday, October 9, for a conference call to evaluate the situation that happened at the Amtrak yard in Chicago. I think there is an opportunity to assess what happened that was good/bad/difficult, and gather lessons to apply for the future.

I propose the following simple agenda:

- What happened that went well
- What went poorly
- Barriers
- Recommendations for improvement

I will forward a call-in number by tomorrow. Please let me know if you are available at that time.

Thank you

Lisa Donahue

Lisa M. Donahue  
Ground Water and Enforcement Branch  
Federal Women's Program Manager  
EPA Region III (3WP22)

1650 Arch St.  
Philadelphia, PA 19103-2029  
215-814-2062 (phone)

What you do makes a difference, and you have to decide what kind of difference you want to make. - Jane Goodall

EPA-R5-2017-011357-84

**Miguel Deltoral /R5/USEPA/US**

10/04/2012 06:53 AM

To "Andrea Putz"

cc "Alan Stark"

bcc

Subject RE: One more edit

Thanks!

Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604  
(312) 886-5253 (P)  
(312) 692-2499 (F)

-----"Putz, Andrea" <Andrea.Putz@cityofchicago.org> wrote: -----

To: Miguel Deltoral/R5/USEPA/US@EPA, "Stark, Alan" <Alan.Stark@cityofchicago.org>

From: "Putz, Andrea" <Andrea.Putz@cityofchicago.org>

Date: 10/03/2012 04:08PM

Subject: RE: One more edit

Looks good, just made the one deletion highlighted in yellow on the first page – the first phrase works best. Thanks!

**From:** Miguel Deltoral [mailto:Deltoral.Miguel@epamail.epa.gov]

**Sent:** Wednesday, October 03, 2012 6:42 AM

**To:** Stark, Alan; Putz, Andrea

**Subject:** One more edit

Just FYI - after I sent the file to you, I added the text below in brackets to the last paragraph (first sentence) before the acknowledgments.

All sites used in this study were single-family homes [with lead service lines].

Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604

(312) 886-5253 (P)  
(312) 692-2499 (F)

This e-mail, and any attachments thereto, is intended only for use by the addressee(s) named herein and may contain legally privileged and/or confidential information. If you are not the intended recipient of this e-mail (or the person responsible for delivering this document to the intended recipient), you are hereby notified that any dissemination, distribution, printing or copying of this e-mail, and any attachment thereto, is strictly prohibited. If you have received this e-mail in error, please respond to the individual sending the message, and permanently delete the original and any copy of any e-mail and printout thereof.

[attachment "System Information rev mark-up 10-03-12 v2.docx" removed by Miguel Deltoral/R5/USEPA/US]

EPA-R5-2017-011357-85

**Lisa Donahue /R3/USEPA/US**

10/04/2012 08:07 AM

To Alan.Stark, DAVE.MCMILLAN, Miguel Deltoral, Thomas Poy,  
VzarE

cc KarenD Johnson

bcc

Subject Amtrak/Chicago evaluation call in 1-866-299-3188 Code 215  
814 2761#

**Meeting**

Date 10/09/2012

Time 08:00:00 AM to 09:00:00 AM

Chair Lisa Donahue

Invitees

Required Alan.Stark; DAVE.MCMILLAN; Miguel Deltoral; Thomas Poy; VzarE

Optional KarenD Johnson

FYI

Location call in 1-866-299-3188 Code 215  
814 2761#

EPA-R5-2017-011357-86

**Miguel Deltoral /R5/USEPA/US**

10/22/2012 06:03 AM

To Thomas Poy, Rita Bair, Nicholas Damato

cc Andrea Porter, Mostafa Noureldin, Heather Shoven, "Alan Stark", "Andrea Putz"

bcc

Subject Low-Flow Woes and Tank Sediment...

Folks,

I have an ongoing fight with our new water-wasting low-flow toilet..from time to time, when I get up in the AM I notice the stupid thing is running. Since it is pretty quiet when I get up, I can hear it clearly. Not so much when the background noise picks up so this may be a bigger issue than folks know. I have replaced the stupid valve twice, and it is still leaking. Yesterday morning when I opened the tank, I noticed a lot of sediment in the tank, so I drained it and took some pics (close-up attached). I looked at the close-up photos and they remind me of the particulate that we found in the Sept/Oct sampling last year when the Fire Dept was running around exercising valves at the same time. The FD does their work in the Fall each year, so the timing would make sense. All we found last year were discrete particles, whereas the tank sediment covers a wide range from fine sediment to nice size scale & corrosion particles. I sucked up most of the stuff I could and put it into one bottle and the rest of the rest of the water into a second bottle, which I will be shipping down to Marc at VT for analysis this week.

The Kohler response on the leaking is that they haven't gotten any other complaints about it, which almost made my head explode. It sounded very similar to the Remington response to one of their defective rifles (accidental firing issue) where they said there were no previous complaints, until it was discovered that they had tons of complaints on the exact same issue on file, and went about quietly settling the claims one by one. They also had documentation from the rifle designer that the trigger mechanism needed to be fixed and another internal document showing they didn't fix it because it would cost \$0.06 per rifle (back then). I was not kind to the Kohler rep and I referred her to a string of posts that I had just read through on this specific issue. I also pointed out that most of the folks said that Kohler either sent them another defective valve (same problem) or referred them to the valve manufacturer, even though the valve is supplied with their toilets. A few posts said Kohler suggested that they call a plumber. I will look into what the WaterSense criteria is to see what leverage we have to get them to do something.

Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604  
(312) 886-5253 (P)



(312) 692-2499 (F) Tank 10-21-12.jpg

EPA-R5-2017-011357-90

**"Stark, Alan"**  
<Alan.Stark@cityofchicago.org>

11/01/2012 11:12 AM

To Miguel Deltoral

cc

bcc

Subject Chicago Reader Article on Pb and Children in CPS...

Hi Miguel,

FYI

<http://www.chicagoreader.com/chicago/high-lead-toxicity-in-chicago-public-schools/Content?oid=7819530>

Thanks

Alan

EPA-R5-2017-011357-91

**Miguel Deltoral /R5/USEPA/US**

11/03/2012 04:50 AM

To "Alan Stark"

cc Andrea Porter, "Andrea Putz"

bcc Maryann Suero

Subject Re: Chicago Reader Article on Pb and Children in CPS ...

I think there are many problems here that folks do not focus on, but the biggest obstacles here are money and fear/ignorance on the part of the parents. I spent one summer of my personal time/money some years ago trying to educate the folks in Pilsen and Little Village about lead paint and having their kids tested. Many didn't want to test the kids because they didn't have the \$ to fix the problem if they found one, so they were scared of the remediation cost. I pointed to sources of funding, and of course you get the courteous 'thank you', but in following up with many who had not had their children tested, just a small number actually had them tested and all of them had high lead levels. Most of the rest said they didn't do it for one reason or another, and a number said they had the kids tested but could not tell me what the results were, so they probably just said they did. I don't know how you fix that.

Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604  
(312) 886-5253 (P)  
(312) 692-2499 (F)

-----"Stark, Alan" <Alan.Stark@cityofchicago.org> wrote: -----

To: Miguel Deltoral/R5/USEPA/US@EPA

From: "Stark, Alan" <Alan.Stark@cityofchicago.org>

Date: 11/01/2012 11:13AM

Subject: Chicago Reader Article on Pb and Children in CPS...

Hi Miguel,

FYI

<http://www.chicagoreader.com/chicago/high-lead-toxicity-in-chicago-public-schools/Content?oid=7819530>

Thanks

Alan

EPA-R5-2017-011357-92

**Miguel Deltoral /R5/USEPA/US**

12/03/2012 12:06 PM

To alan.stark, andrea.putz  
cc Dave.McMillan, Mike.Crumly, Thomas Poy  
bcc Rita Bair, Andrea Porter, Mostafa Noureldin, Kimberly Harris,  
Amanda Wroble  
Subject Partial LSLR Particulate Results

Howdy folks,

If you recall, during the main replacement work on our street, the excavation sprung a leak in our LSL at the b-box and following the partial LSL replacement and turning the water back on, the crew did not want me to flush the outside spigot because the water would run into the trench they were working in, so we ran the tub and flushed the toilet. The particulate from the main work settled in the toilet tank and I collected almost all of the particulate in sample TT001. Sample TT002 was almost all water with suspended solids (slight pinkish hue, so lots of Fe I suspect). I sent you the pic with the particulate in the tank, most of which consisted of ortho flakes that came loose off the LSL when the crew was working on the line, along with some iron-looking particles sprinkled throughout. The results are consistent with the majority being ortho flakes (high P, high Al, etc.)

Attached are some of the results. Two water matrix aliquots were around 350ppb, and following digestion, one of the samples measured 120,000 ppb and the other 300,000 ppb for lead (not joking). I don't have that paperwork yet.

On the good news front, it looks like the flushing we did worked to keep it from getting into the kitchen plumbing. I have checked the aerator periodically after the main replacement and have not seen any ortho flakes, and just specks here and there (likely iron), so a real good one-time flush seemed to do the trick. These are really scary numbers and if folks do not know to flush the line after the main work, this stuff could come up through the kitchen tap. The LCR does not require any kind of notice or flushing instructions, but given these high numbers, Tom Poy asked me to call you to talk about that. These levels are high enough to easily lead-poison adults.

I will be collecting sequential samples at some point soon so that we have some additional information on lead in DW levels to show that the drinking water numbers are throughout.



EPA Chicago test writeup - 11 29 2012.pdf

Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604  
(312) 886-5253 (P)  
(312) 692-2499 (F)

EPA-R5-2017-011357-96

**Miguel Deltoral /R5/USEPA/US**

12/19/2012 07:30 AM

To "Alan Stark", "Andrea Putz"

cc

bcc Robert Clement, Sarah Bahrman

Subject Very Good Article on History of Lead Pipes

FYI, in case you have not seen this. Lots of good references as well.

Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604  
(312) 886-5253 (P)



(312) 692-2499 (F)Lead Industry and Lead Water Pipes-'A Modest Campaign'.pdf

EPA-R5-2017-011357-98

**"Putz, Andrea"**  
<Andrea.Putz@cityofchicago.org>

01/09/2013 11:44 AM

To Miguel Deltoral  
cc "Stark, Alan"  
bcc  
Subject RE: Sampling paper

Miguel,  
Stupid question: is this for submittal to a peer reviewed journal?  
Thanks,  
Andrea

**From:** Deltoral.Miguel@epamail.epa.gov [mailto:Deltoral.Miguel@epamail.epa.gov]  
**Sent:** Wednesday, January 09, 2013 10:30 AM  
**To:** Stark, Alan  
**Cc:** Putz, Andrea  
**Subject:** Sampling paper  
**Importance:** High

Hi Alan,

I got a call from Lisa in your shop and she set up the meeting with you folks for next Monday from 12:30-2pm, so I wanted to get this over to you folks ahead of that so you have time to look at it before Monday. Please feel free to share with folks but keep it internal to your shop. We will likely be submitting this sometime next week.

Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604  
(312) 886-5253 (P)  
(312) 692-2499 (F)

This e-mail, and any attachments thereto, is intended only for use by the addressee(s) named herein and may contain legally privileged and/or confidential information. If you are not the intended recipient of this e-mail (or the person responsible for delivering this document to the intended recipient), you are hereby notified that any dissemination, distribution, printing or copying of this e-mail, and any attachment thereto, is strictly prohibited. If you have received this e-mail in error, please respond to the individual sending the message, and permanently delete the original and any copy of any e-mail and printout thereof.

EPA-R5-2017-011357-99

**Miguel Deltoral /R5/USEPA/US**

To "Andrea Putz"

cc

01/09/2013 11:50 AM

bcc

Subject RE: Sampling paper

Yes. It will be going to ES&T.

Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604  
(312) 886-5253 (P)  
(312) 692-2499 (F)

-----"Putz, Andrea" <Andrea.Putz@cityofchicago.org> wrote: -----

To: Miguel Deltoral/R5/USEPA/US@EPA  
From: "Putz, Andrea" <Andrea.Putz@cityofchicago.org>  
Date: 01/09/2013 11:44AM  
Cc: "Stark, Alan" <Alan.Stark@cityofchicago.org>  
Subject: RE: Sampling paper

Miguel,

Stupid question: is this for submittal to a peer reviewed journal?

Thanks,

Andrea

**From:** Deltoral.Miguel@epamail.epa.gov [mailto:Deltoral.Miguel@epamail.epa.gov]  
**Sent:** Wednesday, January 09, 2013 10:30 AM  
**To:** Stark, Alan  
**Cc:** Putz, Andrea  
**Subject:** Sampling paper  
**Importance:** High

Hi Alan,

I got a call from Lisa in your shop and she set up the meeting with you folks for next Monday from 12:30-2pm, so I wanted to get this over to you folks ahead of that so you

have time to look at it before Monday. Please feel free to share with folks but keep it internal to your shop. We will likely be submitting this sometime next week.

Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604  
(312) 886-5253 (P)  
(312) 692-2499 (F)

This e-mail, and any attachments thereto, is intended only for use by the addressee(s) named herein and may contain legally privileged and/or confidential information. If you are not the intended recipient of this e-mail (or the person responsible for delivering this document to the intended recipient), you are hereby notified that any dissemination, distribution, printing or copying of this e-mail, and any attachment thereto, is strictly prohibited. If you have received this e-mail in error, please respond to the individual sending the message, and permanently delete the original and any copy of any e-mail and printout thereof.

EPA-R5-2017-011357-103

"Stark, Alan"  
<Alan.Stark@cityofchicago.org>

01/14/2013 02:21 PM

To Miguel Deltoral

cc

bcc

Subject FW: 2012 LCR Sample Results for Chicago

Alan Stark  
Water Quality Manager  
Department of Water Management  
Jardine Water Purification Plant  
Chicago, Illinois 60611  
312-744-7733 office  
312-742-2364 fax

---

**From:** Stark, Alan

**Sent:** Tuesday, October 09, 2012 4:16 PM

**To:** Stark, Alan; Jeri.long@illinois.gov

**Cc:** Saleh, Hassen; Powers, Thomas; Murphy, Barrett; Kelly, Mike; Putz, Andrea

**Subject:** 2012 LCR Sample Results for Chicago

**This message has been archived. [View the original item](#)**

Hi Jeri,

Attached (7) is the 2012 LCR Sample Results for the City of Chicago Dept. of Water Management. Please acknowledge receipt of this email and attachment.

Hope all is well,

Thanks  
Alan

**Attachments:**

<a href="#">2012ChicagoLeadandCopperReportCoverand90thCalc.pdf</a>	(227 KB)
<a href="#">282987_Final.pdf</a>	(2.3 MB)
<a href="#">283348_FINAL.pdf</a>	(2.0 MB)
<a href="#">283635_FINAL.pdf</a>	(3.7 MB)
<a href="#">284133-FINAL.pdf</a>	(2.4 MB)
<a href="#">284531-FINAL.pdf</a>	(2.5 MB)
<a href="#">284837-FINAL.pdf</a>	(2.6 MB)

This e-mail, and any attachments thereto, is intended only for use by the addressee(s) named herein and may contain legally privileged and/or confidential information. If you are not the intended recipient of this e-mail (or the person responsible for delivering this document to the intended recipient), you are hereby notified that any dissemination, distribution, printing or copying of this e-mail, and any attachment thereto, is strictly prohibited. If you have received this e-mail in error, please respond to the individual sending the message, and permanently delete the

original and any copy of any e-mail and printout thereof. @



EPA-R5-2017-011357-104

**Miguel Deltoral /R5/USEPA/US**

01/15/2013 03:58 AM

To "Alan Stark"

cc Andrea Porter, "Andrea Putz"

bcc

Subject FW: 2012 LCR Sample Results for Chicago

Hi Alan,

The links below seem to be to someplace internal in your system which we have no access to . All we need for now are the following:

Monitoring Period Begin Date (e.g., 1/1/2011)  
Monitoring Period End Date (e.g., 12/31/2013)  
Number of samples  
90th percentile value (ug/L)

I will be out all week, so please copy Andrea Porter on all email.

Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604  
(312) 886-5253 (P)  
(312) 692-2499 (F)

-----"Stark, Alan" <Alan.Stark@cityofchicago.org> wrote: -----

To: Miguel Deltoral/R5/USEPA/US@EPA  
From: "Stark, Alan" <Alan.Stark@cityofchicago.org>  
Date: 01/14/2013 02:22PM  
Subject: FW: 2012 LCR Sample Results for Chicago

Alan Stark  
Water Quality Manager  
Department of Water Management  
Jardine Water Purification Plant  
Chicago, Illinois 60611  
312-744-7733 office  
312-742-2364 fax

---

**From:** Stark, Alan  
**Sent:** Tuesday, October 09, 2012 4:16 PM  
**To:** Stark, Alan; Jeri.long@illinois.gov  
**Cc:** Saleh, Hassen; Powers, Thomas; Murphy, Barrett; Kelly, Mike; Putz, Andrea  
**Subject:** 2012 LCR Sample Results for Chicago

This message has been archived. [View the original item](#)  
Hi Jeri,

Attached (7) is the 2012 LCR Sample Results for the City of Chicago Dept. of Water Management. Please acknowledge receipt of this email and attachment.

Hope all is well,

Thanks  
Alan

Attachments:

<a href="#"><u>2012ChicagoLeadandCopperReportCoverand90thCalc.pdf</u></a>	(227 KB)
<a href="#"><u>282987_Final.pdf</u></a>	(2.3 MB)
<a href="#"><u>283348_FINAL.pdf</u></a>	(2.0 MB)
<a href="#"><u>283635_FINAL.pdf</u></a>	(3.7 MB)
<a href="#"><u>284133-FINAL.pdf</u></a>	(2.4 MB)
<a href="#"><u>284531-FINAL.pdf</u></a>	(2.5 MB)
<a href="#"><u>284837-FINAL.pdf</u></a>	(2.6 MB)

This e-mail, and any attachments thereto, is intended only for use by the addressee(s) named herein and may contain legally privileged and/or confidential information. If you are not the intended recipient of this e-mail (or the person responsible for delivering this document to the intended recipient), you are hereby notified that any dissemination, distribution, printing or copying of this e-mail, and any attachment thereto, is strictly prohibited. If you have received this e-mail in error, please respond to the individual sending the message, and permanently delete the original and any copy of any e-mail and printout thereof.

[attachment "@ " removed by Miguel Deltoral/R5/USEPA/US]

EPA-R5-2017-011357-105

"Stark, Alan"  
<Alan.Stark@cityofchicago.org>

01/15/2013 10:44 AM

To Miguel Deltoral  
cc Andrea Porter, "Putz, Andrea"  
bcc

Subject RE: 2012 LCR Sample Results for Chicago

Hi Miguel,

Sorry....

Monitoring Period Begin Date: June 1, 2012  
Monitoring Period End Date: September 30, 2012  
Number of samples: 50  
90th percentile value (ug/L): Pb = 6.6µg/L; Cu = 46.0µg/L

Alan Stark  
Department of Water Management  
Jardine Water Purification Plant  
Chicago, Illinois 60611  
312-744-7733 office  
312-742-2364 fax

---

**From:** Deltoral.Miguel@epamail.epa.gov [Deltoral.Miguel@epamail.epa.gov]  
**Sent:** Tuesday, January 15, 2013 3:58 AM  
**To:** Stark, Alan  
**Cc:** Porter.Andrea@epamail.epa.gov; Putz, Andrea  
**Subject:** FW: 2012 LCR Sample Results for Chicago

Hi Alan,

The links below seem to be to someplace internal in your system which we have no access to . All we need for now are the following:

Monitoring Period Begin Date (e.g., 1/1/2011)  
Monitoring Period End Date (e.g., 12/31/2013)  
Number of samples  
90th percentile value (ug/L)

I will be out all week, so please copy Andrea Porter on all email.

Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604  
(312) 886-5253 (P)  
(312) 692-2499 (F)

-----"Stark, Alan" <Alan.Stark@cityofchicago.org> wrote: -----  
To: Miguel Deltoral/R5/USEPA/US@EPA

From: "Stark, Alan" <Alan.Stark@cityofchicago.org>  
Date: 01/14/2013 02:22PM  
Subject: FW: 2012 LCR Sample Results for Chicago

Alan Stark  
Water Quality Manager  
Department of Water Management  
Jardine Water Purification Plant  
Chicago, Illinois 60611  
312-744-7733 office  
312-742-2364 fax

---

**From:** Stark, Alan  
**Sent:** Tuesday, October 09, 2012 4:16 PM  
**To:** Stark, Alan; Jeri.long@illinois.gov  
**Cc:** Saleh, Hassen; Powers, Thomas; Murphy, Barrett; Kelly, Mike; Putz, Andrea  
**Subject:** 2012 LCR Sample Results for Chicago

This message has been archived. [View the original item](#)  
Hi Jeri,

Attached (7) is the 2012 LCR Sample Results for the City of Chicago Dept. of Water Management. Please acknowledge receipt of this email and attachment.

Hope all is well,

Thanks  
Alan

Attachments:

<a href="#">2012ChicagoLeadandCopperReportCoverand90thCalc.pdf</a>	(227 KB)
<a href="#">282987_Final.pdf</a>	(2.3 MB)
<a href="#">283348_FINAL.pdf</a>	(2.0 MB)
<a href="#">283635_FINAL.pdf</a>	(3.7 MB)
<a href="#">284133-FINAL.pdf</a>	(2.4 MB)
<a href="#">284531-FINAL.pdf</a>	(2.5 MB)
<a href="#">284837-FINAL.pdf</a>	(2.6 MB)

This e-mail, and any attachments thereto, is intended only for use by the addressee(s) named herein and may contain legally privileged and/or confidential information. If you are not the intended recipient of this e-mail (or the person responsible for delivering this document to the intended recipient), you are hereby notified that any dissemination, distribution, printing or copying of this e-mail, and any attachment thereto, is strictly prohibited. If you have received this e-mail in error, please respond to the individual sending the message, and permanently delete the original and any copy of any e-mail and printout thereof.

[attachment "@" removed by Miguel Deltoral/R5/USEPA/US]

EPA-R5-2017-011357-106

"Putz, Andrea"  
<Andrea.Putz@cityofchicago.org>

01/16/2013 05:10 PM

To Miguel Deltoral, "Stark, Alan"

cc Andrea Porter, "Murphy, Barrett", "Powers, Thomas"

bcc

Subject RE: 2012 LCR Sample Results for Chicago

Miguel,

We are working on getting you the lead data we have before and after meter installation, but for site #35 that got a meter and had high lead numbers in general, I looked up the meter installation work order. This customer not only has a lead service line, they actually have lead interior piping. Their meter was installed 8/3/11 as a meter vault, which means the work was done directly on the lead service as opposed to the usual indoor basement installation. The vault was installed in front of the sidewalk. This might help explain why the lead numbers were so high, and increased afterwards, since the vault work was done directly on the lead water service.

Thanks,  
Andrea

**From:** Deltoral.Miguel@epamail.epa.gov [mailto:Deltoral.Miguel@epamail.epa.gov]

**Sent:** Tuesday, January 15, 2013 3:59 AM

**To:** Stark, Alan

**Cc:** Porter.Andrea@epamail.epa.gov; Putz, Andrea

**Subject:** FW: 2012 LCR Sample Results for Chicago

**Importance:** High

Hi Alan,

The links below seem to be to someplace internal in your system which we have no access to. All we need for now are the following:

Monitoring Period Begin Date (e.g., 1/1/2011)  
Monitoring Period End Date (e.g., 12/31/2013)  
Number of samples  
90th percentile value (ug/L)

I will be out all week, so please copy Andrea Porter on all email.

Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604  
(312) 886-5253 (P)  
(312) 692-2499 (F)

-----"Stark, Alan" <Alan.Stark@cityofchicago.org> wrote: -----

To: Miguel Deltoral/R5/USEPA/US@EPA

From: "Stark, Alan" <[Alan.Stark@cityofchicago.org](mailto:Alan.Stark@cityofchicago.org)>  
Date: 01/14/2013 02:22PM  
Subject: FW: 2012 LCR Sample Results for Chicago

Alan Stark  
Water Quality Manager  
Department of Water Management  
Jardine Water Purification Plant  
Chicago, Illinois 60611  
312-744-7733 office  
312-742-2364 fax

---

**From:** Stark, Alan  
**Sent:** Tuesday, October 09, 2012 4:16 PM  
**To:** Stark, Alan; Jeri.long@illinois.gov  
**Cc:** Saleh, Hassen; Powers, Thomas; Murphy, Barrett; Kelly, Mike; Putz, Andrea  
**Subject:** 2012 LCR Sample Results for Chicago  
This message has been archived. [View the original item](#)  
Hi Jeri,

Attached (7) is the 2012 LCR Sample Results for the City of Chicago Dept. of Water Management. Please acknowledge receipt of this email and attachment.

Hope all is well,

Thanks  
Alan  
Attachments:

<a href="#">2012ChicagoLeadandCopperReportCoverand90thCalc.pdf</a>	(227 KB)
<a href="#">282987_Final.pdf</a>	(2.3 MB)
<a href="#">283348_FINAL.pdf</a>	(2.0 MB)
<a href="#">283635_FINAL.pdf</a>	(3.7 MB)
<a href="#">284133-FINAL.pdf</a>	(2.4 MB)
<a href="#">284531-FINAL.pdf</a>	(2.5 MB)
<a href="#">284837-FINAL.pdf</a>	(2.6 MB)

This e-mail, and any attachments thereto, is intended only for use by the addressee(s) named herein and may contain legally privileged and/or confidential information. If you are not the intended recipient of this e-mail (or the person responsible for delivering this document to the intended recipient), you are hereby notified that any dissemination, distribution, printing or copying of this e-mail, and any attachment thereto, is strictly prohibited. If you have received this e-mail in error, please respond to the individual sending the message, and permanently delete the original and any copy of any e-mail and printout thereof.

[attachment "@" removed by Miguel Deltoral/R5/USEPA/US]

EPA-R5-2017-011357-107

**Miguel Deltoral /R5/USEPA/US**

01/16/2013 05:54 PM

To "Putz, Andrea"

cc "Stark, Alan", Andrea Porter, "Murphy, Barrett", "Powers, Thomas"

bcc

Subject RE: 2012 LCR Sample Results for Chicago

OK, thanks.

According to the volunteer they actually have two lead service lines coming into the home . I'll look up the details, but I think I recall that one line is used for human consumption and the other is used for non-consumption (washing machine, etc.). Not sure about the other line, but the lead service that is used for human consumption continues well beyond the front wall at this site , and there are other sites where the lead line continues into the home as well . We included that info in the supplemental information document in a table. In that table, IFW indicates the lead line comes up right inside the front wall , and BFW indicates it extends beyond the front wall into the home . At these sites, you see the lead rise quickly in the sequential sampling as you would expect because you hit the lead line relatively quickly .

One of the other things I am not sure I mentioned to you folks is that when they were doing water main work here on my street, the trench excavation indirectly caused two service line leaks on our block . One was in the line to our building and one was down the street. For our building, the crack was at the solder joint where the service connected to the external shut-off valve, so we have a partial lead service line at this point. I did not see the excavation/repair at the other site, but the water was bubbling up around their meter pit, so the leak occurred in the same general area as on our line .

Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604  
(312) 886-5253 (P)  
(312) 692-2499 (F)

"Putz, Andrea"

Miguel, We are working on getting you...

01/16/2013 05:10:43 PM

From: "Putz, Andrea" <Andrea.Putz@cityofchicago.org>  
To: Miguel Deltoral/R5/USEPA/US@EPA, "Stark, Alan" <Alan.Stark@cityofchicago.org>  
Cc: Andrea Porter/R5/USEPA/US@EPA, "Murphy, Barrett" <Barrett.Murphy@cityofchicago.org>, "Powers, Thomas" <Thomas.Powers@cityofchicago.org>  
Date: 01/16/2013 05:10 PM  
Subject: RE: 2012 LCR Sample Results for Chicago

---

Miguel,

We are working on getting you the lead data we have before and after meter installation, but for site #35 that got a meter and had high lead numbers in general, I looked up the meter installation work order. This customer not only has a lead service line, they actually have lead interior piping. Their meter was installed 8/3/11 as a meter vault, which means the work was done directly on the lead service as opposed to the usual indoor basement installation. The vault was installed in front of the sidewalk. This might help explain why the lead numbers were so high, and increased afterwards, since the vault work was done directly on the lead water service .

Thanks,

Andrea

**From:** Deltoral.Miguel@epamail.epa.gov [mailto:Deltoral.Miguel@epamail.epa.gov]  
**Sent:** Tuesday, January 15, 2013 3:59 AM  
**To:** Stark, Alan  
**Cc:** Porter.Andrea@epamail.epa.gov; Putz, Andrea  
**Subject:** FW: 2012 LCR Sample Results for Chicago  
**Importance:** High

Hi Alan,

The links below seem to be to someplace internal in your system which we have no access to. All we need for now are the following:

Monitoring Period Begin Date (e.g., 1/1/2011)  
Monitoring Period End Date (e.g., 12/31/2013)  
Number of samples  
90th percentile value (ug/L)

I will be out all week, so please copy Andrea Porter on all email.

Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604  
(312) 886-5253 (P)  
(312) 692-2499 (F)

-----"Stark, Alan" <[Alan.Stark@cityofchicago.org](mailto:Alan.Stark@cityofchicago.org)> wrote: -----  
To: Miguel Deltoral/R5/USEPA/US@EPA  
From: "Stark, Alan" <[Alan.Stark@cityofchicago.org](mailto:Alan.Stark@cityofchicago.org)>  
Date: 01/14/2013 02:22PM  
Subject: FW: 2012 LCR Sample Results for Chicago

Alan Stark  
Water Quality Manager  
Department of Water Management  
Jardine Water Purification Plant  
Chicago, Illinois 60611  
312-744-7733 office  
312-742-2364 fax

---

**From:** Stark, Alan  
**Sent:** Tuesday, October 09, 2012 4:16 PM  
**To:** Stark, Alan; Jeri.long@illinois.gov  
**Cc:** Saleh, Hassen; Powers, Thomas; Murphy, Barrett; Kelly, Mike; Putz, Andrea  
**Subject:** 2012 LCR Sample Results for Chicago  
This message has been archived. [View the original item](#)

Hi Jeri,

Attached (7) is the 2012 LCR Sample Results for the City of Chicago Dept. of Water Management. Please acknowledge receipt of this email and attachment.

Hope all is well,

Thanks

Alan

Attachments:

<a href="#">2012ChicagoLeadandCopperReportCoverand90thCalc.pdf</a>	(227 KB)
<a href="#">282987_Final.pdf</a>	(2.3 MB)
<a href="#">283348_FINAL.pdf</a>	(2.0 MB)
<a href="#">283635_FINAL.pdf</a>	(3.7 MB)
<a href="#">284133-FINAL.pdf</a>	(2.4 MB)
<a href="#">284531-FINAL.pdf</a>	(2.5 MB)
<a href="#">284837-FINAL.pdf</a>	(2.6 MB)

This e-mail, and any attachments thereto, is intended only for use by the addressee(s) named herein and may contain legally privileged and/or confidential information. If you are not the intended recipient of this e-mail (or the person responsible for delivering this document to the intended recipient), you are hereby notified that any dissemination, distribution, printing or copying of this e-mail, and any attachment thereto, is strictly prohibited. If you have received this e-mail in error, please respond to the individual sending the message, and permanently delete the original and any copy of any e-mail and printout thereof.

[attachment "@" removed by Miguel Deltoral/R5/USEPA/US]

EPA-R5-2017-011357-108

"Putz, Andrea"  
<Andrea.Putz@cityofchicago.org>

01/17/2013 11:28 AM

To Miguel Deltoral

cc "Stark, Alan", Andrea Porter, "Murphy, Barrett", "Powers, Thomas"

bcc

Subject RE: 2012 LCR Sample Results for Chicago

Miguel,

Attached is the lead data from before and after meter installation.

Also, yes, the customer had wiped branches as we call it – multiple lines coming in that couldn't be tied together – so a vault was installed near the sidewalk upstream of the where the service line splits into two.

Thanks,  
Andrea

**From:** Deltoral.Miguel@epamail.epa.gov [mailto:Deltoral.Miguel@epamail.epa.gov]  
**Sent:** Wednesday, January 16, 2013 5:55 PM  
**To:** Putz, Andrea  
**Cc:** Stark, Alan; Porter.Andrea@epamail.epa.gov; Murphy, Barrett; Powers, Thomas  
**Subject:** RE: 2012 LCR Sample Results for Chicago

OK, thanks.

According to the volunteer they actually have two lead service lines coming into the home. I'll look up the details, but I think I recall that one line is used for human consumption and the other is used for non-consumption (washing machine, etc.). Not sure about the other line, but the lead service that is used for human consumption continues well beyond the front wall at this site, and there are other sites where the lead line continues into the home as well. We included that info in the supplemental information document in a table. In that table, IFW indicates the lead line comes up right inside the front wall, and BFW indicates it extends beyond the front wall into the home. At these sites, you see the lead rise quickly in the sequential sampling as you would expect because you hit the lead line relatively quickly.

One of the other things I am not sure I mentioned to you folks is that when they were doing water main work here on my street, the trench excavation indirectly caused two service line leaks on our block. One was in the line to our building and one was down the street. For our building, the crack was at the solder joint where the service connected to the external shut-off valve, so we have a partial lead service line at this point. I did not see the excavation/repair at the other site, but the water was bubbling up around their meter pit, so the leak occurred in the same general area as on our line.

Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604  
(312) 886-5253 (P)  
(312) 692-2499 (F)

▼ "Putz, Andrea" ---01/16/2013 05:10:43 PM---Miguel, We are working on getting you the lead data we have before and after meter installation, but

From: "Putz, Andrea" <[Andrea.Putz@cityofchicago.org](mailto:Andrea.Putz@cityofchicago.org)>  
To: Miguel Deltoral/R5/USEPA/US@EPA, "Stark, Alan" <[Alan.Stark@cityofchicago.org](mailto:Alan.Stark@cityofchicago.org)>  
Cc: Andrea Porter/R5/USEPA/US@EPA, "Murphy, Barrett" <[Barrett.Murphy@cityofchicago.org](mailto:Barrett.Murphy@cityofchicago.org)>, "Powers, Thomas" <[Thomas.Powers@cityofchicago.org](mailto:Thomas.Powers@cityofchicago.org)>  
Date: 01/16/2013 05:10 PM  
Subject: RE: 2012 LCR Sample Results for Chicago

---

Miguel,

We are working on getting you the lead data we have before and after meter installation, but for site #35 that got a meter and had high lead numbers in general, I looked up the meter installation work order. This customer not only has a lead service line, they actually have lead interior piping. Their meter was installed 8/3/11 as a meter vault, which means the work was done directly on the lead service as opposed to the usual indoor basement installation. The vault was installed in front of the sidewalk. This might help explain why the lead numbers were so high, and increased afterwards, since the vault work was done directly on the lead water service.

Thanks,

Andrea

**From:** [Deltoral.Miguel@epamail.epa.gov](mailto:Deltoral.Miguel@epamail.epa.gov) [<mailto:Deltoral.Miguel@epamail.epa.gov>]  
**Sent:** Tuesday, January 15, 2013 3:59 AM  
**To:** Stark, Alan  
**Cc:** [Porter.Andrea@epamail.epa.gov](mailto:Porter.Andrea@epamail.epa.gov); Putz, Andrea  
**Subject:** FW: 2012 LCR Sample Results for Chicago  
**Importance:** High

Hi Alan,

The links below seem to be to someplace internal in your system which we have no access to. All we need for now are the following:

Monitoring Period Begin Date (e.g., 1/1/2011)  
Monitoring Period End Date (e.g., 12/31/2013)  
Number of samples  
90th percentile value (ug/L)

I will be out all week, so please copy Andrea Porter on all email.

Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604  
(312) 886-5253 (P)  
(312) 692-2499 (F)

-----"Stark, Alan" <[Alan.Stark@cityofchicago.org](mailto:Alan.Stark@cityofchicago.org)> wrote: -----

To: Miguel Deltoral/R5/USEPA/US@EPA  
From: "Stark, Alan" <[Alan.Stark@cityofchicago.org](mailto:Alan.Stark@cityofchicago.org)>  
Date: 01/14/2013 02:22PM  
Subject: FW: 2012 LCR Sample Results for Chicago

Alan Stark  
Water Quality Manager  
Department of Water Management  
Jardine Water Purification Plant  
Chicago, Illinois 60611  
312-744-7733 office  
312-742-2364 fax

---

**From:** Stark, Alan  
**Sent:** Tuesday, October 09, 2012 4:16 PM  
**To:** Stark, Alan; Jeri.long@illinois.gov  
**Cc:** Saleh, Hassen; Powers, Thomas; Murphy, Barrett; Kelly, Mike; Putz, Andrea  
**Subject:** 2012 LCR Sample Results for Chicago  
This message has been archived. [View the original item](#)  
Hi Jeri,

Attached (7) is the 2012 LCR Sample Results for the City of Chicago Dept. of Water Management. Please acknowledge receipt of this email and attachment.

Hope all is well,

Thanks  
Alan

Attachments:

<a href="#">2012ChicagoLeadandCopperReportCoverand90thCalc.pdf</a>	(227 KB)
<a href="#">282987_Final.pdf</a>	(2.3 MB)
<a href="#">283348_FINAL.pdf</a>	(2.0 MB)
<a href="#">283635_FINAL.pdf</a>	(3.7 MB)
<a href="#">284133-FINAL.pdf</a>	(2.4 MB)
<a href="#">284531-FINAL.pdf</a>	(2.5 MB)
<a href="#">284837-FINAL.pdf</a>	(2.6 MB)

This e-mail, and any attachments thereto, is intended only for use by the addressee(s) named herein and may contain legally privileged and/or confidential information. If you are not the intended recipient of this e-mail (or the person responsible for delivering this document to the intended recipient), you are hereby notified that any dissemination, distribution, printing or copying of this e-mail, and any attachment thereto, is strictly prohibited. If you have received this e-mail in error, please respond to the individual sending the message, and permanently delete the original and any copy of any e-mail and printout thereof.

[attachment "@" removed by Miguel Deltoral/R5/USEPA/US]

This e-mail, and any attachments thereto, is intended only for use by the addressee(s) named herein and may contain legally privileged and/or confidential information. If you are not the intended recipient of this e-mail (or the person responsible for delivering this document to the intended recipient), you are hereby notified that any dissemination, distribution, printing or copying of this e-mail, and any attachment thereto, is strictly prohibited. If you have received this e-mail in error, please respond to the individual sending the message, and permanently delete the original and any copy of any e-mail and printout thereof.



**Before & After Meters Lead Sampling Final Report.pdf**

EPA-R5-2017-011357-109

**Miguel Deltoral /R5/USEPA/US**

01/17/2013 11:55 AM

To "Andrea Putz"

cc "Alan Stark", Andrea Porter, "Murphy, Barrett", "Powers, Thomas"

bcc Michael Schock

Subject RE: 2012 LCR Sample Results for Chicago

Thanks!

These findings are consistent with what we are seeing overall as well as prior findings , in that the more you disturb the line, the higher the lead will be in most cases . It would make sense if you don't have to mess with the pipe too much that you should not see much different before/after unless you have galvanic corrosion issues, which we have seen in some places. It's the disturbance to the line, not the act of installing meters that results in the higher lead . The duration of high lead following these disturbances is literally all over the map, and I am sure depends on how extensive the damage was, what the water use is (very likely factor) and in some places the extent of galvanic corrosion .

The highest lead levels are going to be in the excavation arena due to the pounding (vibrations) in opening up the street and the trench digging as well, and following that the digging around the lead line and the bending of the pipe once they are in there. In the trench work here along Millard avenue, since the lead line is much easier to bend than the copper pipe, the lead lines were bent and manuevred to make the connection with the copper pipe/brass connector, so that also knocks off a good deal of the protective scale. Regarding the grounding issue...I still don't understand why this issue keeps coming up, and we keep trying to correct this message, but the grounding is not going to cause these increases/decreases. I'll make a note to dedicate some time on this topic when we update our corrosion and corrosion control guidance manual.

Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604  
(312) 886-5253 (P)  
(312) 692-2499 (F)

-----"Putz, Andrea" <Andrea.Putz@cityofchicago.org> wrote: -----

To: Miguel Deltoral/R5/USEPA/US@EPA

From: "Putz, Andrea" <Andrea.Putz@cityofchicago.org>

Date: 01/17/2013 11:28AM

Cc: "Stark, Alan" <Alan.Stark@cityofchicago.org>, Andrea Porter/R5/USEPA/US@EPA, "Murphy, Barrett" <Barrett.Murphy@cityofchicago.org>, "Powers, Thomas" <Thomas.Powers@cityofchicago.org>

Subject: RE: 2012 LCR Sample Results for Chicago

Miguel,

Attached is the lead data from before and after meter installation.

Also, yes, the customer had wiped branches as we call it – multiple lines coming in that couldn't be tied together – so a vault was installed near the sidewalk upstream of the where the service line splits into two.

Thanks,

Andrea

**From:** Deltoral.Miguel@epamail.epa.gov [mailto:Deltoral.Miguel@epamail.epa.gov]  
**Sent:** Wednesday, January 16, 2013 5:55 PM  
**To:** Putz, Andrea  
**Cc:** Stark, Alan; Porter.Andrea@epamail.epa.gov; Murphy, Barrett; Powers, Thomas  
**Subject:** RE: 2012 LCR Sample Results for Chicago

OK, thanks.

According to the volunteer they actually have two lead service lines coming into the home. I'll look up the details, but I think I recall that one line is used for human consumption and the other is used for non-consumption (washing machine, etc.). Not sure about the other line, but the lead service that is used for human consumption continues well beyond the front wall at this site, and there are other sites where the lead line continues into the home as well. We included that info in the supplemental information document in a table. In that table, IFW indicates the lead line comes up right inside the front wall, and BFW indicates it extends beyond the front wall into the home. At these sites, you see the lead rise quickly in the sequential sampling as you would expect because you hit the lead line relatively quickly.

One of the other things I am not sure I mentioned to you folks is that when they were doing water main work here on my street, the trench excavation indirectly caused two service line leaks on our block. One was in the line to our building and one was down the street. For our building, the crack was at the solder joint where the service connected to the external shut-off valve, so we have a partial lead service line at this point. I did not see the excavation/repair at the other site, but the water was bubbling up around their meter pit, so the leak occurred in the same general area as on our line.

Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604  
(312) 886-5253 (P)  
(312) 692-2499 (F)

▼ "Putz, Andrea" ---01/16/2013 05:10:43 PM---Miguel, We are working on getting you the lead data we have before and after meter installation, but

From: "Putz, Andrea" <[Andrea.Putz@cityofchicago.org](mailto:Andrea.Putz@cityofchicago.org)>  
To: Miguel Deltoral/R5/USEPA/US@EPA, "Stark, Alan" <[Alan.Stark@cityofchicago.org](mailto:Alan.Stark@cityofchicago.org)>  
Cc: Andrea Porter/R5/USEPA/US@EPA, "Murphy, Barrett" <[Barrett.Murphy@cityofchicago.org](mailto:Barrett.Murphy@cityofchicago.org)>, "Powers, Thomas" <

[Thomas.Powers@cityofchicago.org](mailto:Thomas.Powers@cityofchicago.org)>

Date: 01/16/2013 05:10 PM

Subject: RE: 2012 LCR Sample Results for Chicago

---

Miguel,

We are working on getting you the lead data we have before and after meter installation , but for site #35 that got a meter and had high lead numbers in general , I looked up the meter installation work order . This customer not only has a lead service line, they actually have lead interior piping. Their meter was installed 8/3/11 as a meter vault, which means the work was done directly on the lead service as opposed to the usual indoor basement installation. The vault was installed in front of the sidewalk. This might help explain why the lead numbers were so high, and increased afterwards, since the vault work was done directly on the lead water service .

Thanks,

Andrea

**From:** [Deltoral.Miguel@epamail.epa.gov](mailto:Deltoral.Miguel@epamail.epa.gov) [<mailto:Deltoral.Miguel@epamail.epa.gov>]

**Sent:** Tuesday, January 15, 2013 3:59 AM

**To:** Stark, Alan

**Cc:** [Porter.Andrea@epamail.epa.gov](mailto:Porter.Andrea@epamail.epa.gov); Putz, Andrea

**Subject:** FW: 2012 LCR Sample Results for Chicago

**Importance:** High

Hi Alan,

The links below seem to be to someplace internal in your system which we have no access to. All we need for now are the following:

Monitoring Period Begin Date (e.g., 1/1/2011)

Monitoring Period End Date (e.g., 12/31/2013)

Number of samples

90th percentile value (ug/L)

I will be out all week, so please copy Andrea Porter on all email.

Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604  
(312) 886-5253 (P)  
(312) 692-2499 (F)

-----"Stark, Alan" <[Alan.Stark@cityofchicago.org](mailto:Alan.Stark@cityofchicago.org)> wrote: -----

To: Miguel Deltoral/R5/USEPA/US@EPA

From: "Stark, Alan" <[Alan.Stark@cityofchicago.org](mailto:Alan.Stark@cityofchicago.org)>

Date: 01/14/2013 02:22PM

Subject: FW: 2012 LCR Sample Results for Chicago

Alan Stark  
Water Quality Manager  
Department of Water Management  
Jardine Water Purification Plant  
Chicago, Illinois 60611  
312-744-7733 office  
312-742-2364 fax

---

**From:** Stark, Alan  
**Sent:** Tuesday, October 09, 2012 4:16 PM  
**To:** Stark, Alan; Jeri.long@illinois.gov  
**Cc:** Saleh, Hassen; Powers, Thomas; Murphy, Barrett; Kelly, Mike; Putz, Andrea  
**Subject:** 2012 LCR Sample Results for Chicago  
This message has been archived. [View the original item](#)  
Hi Jeri,

Attached (7) is the 2012 LCR Sample Results for the City of Chicago Dept. of Water Management. Please acknowledge receipt of this email and attachment.

Hope all is well,

Thanks  
Alan  
Attachments:

<a href="#">2012ChicagoLeadandCopperReportCoverand90thCalc.pdf</a>	(227 KB)
<a href="#">282987_Final.pdf</a>	(2.3 MB)
<a href="#">283348_FINAL.pdf</a>	(2.0 MB)
<a href="#">283635_FINAL.pdf</a>	(3.7 MB)
<a href="#">284133-FINAL.pdf</a>	(2.4 MB)
<a href="#">284531-FINAL.pdf</a>	(2.5 MB)
<a href="#">284837-FINAL.pdf</a>	(2.6 MB)

This e-mail, and any attachments thereto, is intended only for use by the addressee(s) named herein and may contain legally privileged and/or confidential information. If you are not the intended recipient of this e-mail (or the person responsible for delivering this document to the intended recipient), you are hereby notified that any dissemination, distribution, printing or copying of this e-mail, and any attachment thereto, is strictly prohibited. If you have received this e-mail in error, please respond to the individual sending the message, and permanently delete the original and any copy of any e-mail and printout thereof.

[attachment "@ " removed by Miguel Deltoral/R5/USEPA/US]

This e-mail, and any attachments thereto, is intended only for use by the addressee(s) named herein and may contain legally privileged and/or confidential information. If you are not the intended recipient of this e-mail (or the person responsible for delivering this document to the intended recipient), you are hereby

notified that any dissemination, distribution, printing or copying of this e-mail, and any attachment thereto, is strictly prohibited. If you have received this e-mail in error, please respond to the individual sending the message, and permanently delete the original and any copy of any e-mail and printout thereof.

[attachment "Before & After Meters Lead Sampling Final Report.pdf" removed by Miguel Deltoral/R5/USEPA/US]

EPA-R5-2017-011357-111

**Miguel Deltoral /R5/USEPA/US**

To "Alan Stark"

cc

02/14/2013 01:22 PM

bcc

Subject Service line diameters

Hi Alan,

What I am looking for on the service pipe diameters is any historical info on the criteria that was used in Chicago, with respect to the relationship between the type of structure served by the connection (e.g., single family, multi-family x units, etc.) and the service size.

Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604  
(312) 886-5253 (P)  
(312) 692-2499 (F)

EPA-R5-2017-011357-112

"Stark, Alan"  
<Alan.Stark@cityofchicago.org>

02/14/2013 01:43 PM

To Miguel Deltoral

cc

bcc

Subject RE: Service line diameters

Will do

Alan Stark  
Department of Water Management  
Jardine Water Purification Plant  
Chicago, Illinois 60611  
312-744-7733 office  
312-742-2364 fax

---

**From:** Deltoral.Miguel@epamail.epa.gov [Deltoral.Miguel@epamail.epa.gov]

**Sent:** Thursday, February 14, 2013 1:22 PM

**To:** Stark, Alan

**Subject:** Service line diameters

Hi Alan,

What I am looking for on the service pipe diameters is any historical info on the criteria that was used in Chicago, with respect to the relationship between the type of structure served by the connection (e.g., single family, multi-family x units, etc.) and the service size.

Miguel A. Del Toral  
Regulations Manager  
Ground Water and Drinking Water Branch  
U.S. Environmental Protection Agency/Region 5  
77 W. Jackson Blvd (WG-15J)  
Chicago, IL 60604  
(312) 886-5253 (P)  
(312) 692-2499 (F)

This e-mail, and any attachments thereto, is intended only for use by the addressee(s) named herein and may contain legally privileged and/or confidential information. If you are not the intended recipient of this e-mail (or the person responsible for delivering this document to the intended recipient), you are hereby notified that any dissemination, distribution, printing or copying of this e-mail, and any attachment thereto, is strictly prohibited. If you have received this e-mail in error, please respond to the individual sending the message, and permanently delete the original and any copy of any e-mail and printout thereof.